PATHCON & LAB EXPO 2022

VIRTUAL	HYBRID
17th December, 2022	18th December, 2022

Vivanta by Taj, Dwarka, New Delhi

Conference SOUVENIR

WWW.PATHCON2022.COM

ORGANIZING COMMITTEE

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MESSAGE FROM LT. GEN. (DR) J. R. BHARDWAJ

It gives me immense pleasure to know that **6th PATHCON AND LAB EXPO** is being organized by ever so hungry for knowledge and Quality conscious group of Practicing Pathologists of Delhi, who in these past few years have made the second week of December synonymous with its National level conference, although Covid did pause their dream run temporarily, but I am glad that they are back this year with same valor and greater enthusiasm.

I am also told that this time the venue has been changed to Dwarka and Pathologists of Delhi are moving with time by organizing this episode of Pathcon in a hybrid mode.

Pathology especially Lab Medicine is a branch of Medicine which has evolved very rapidly and embraced technology with open arms. To choose topics of interest to all for 12 workshops, which can hold you to your computer screens might not have been an easy job, lectures on the day of the conference which involve both established and young budding pathologists is a Herculean task.

Widespread participation from all the leading diagnostic companies in the Lab Expo has also been the hallmark of PATHCON all these years.

Once again congratulate the tireless work done by the organizing committee of the PATCHON and the APP all the year to make the event a successful one.

Wishing you all the best.

Lt. Gen. (Dr) J. R. Bhardwaj
Delhi

MESSAGE FROM PRESIDENT, DMC

It is my great honor & pleasure to be a part of **PATHCON-2022** being organized by Association of Practising pathologists (regd.) on **17-18 Dec 2022.**

This conference will assemble together domain researchers, experts, professors, pathologists, industry partners, postdoctoral fellows, and students from all over India, providing them with the opportunity to report, share, and discuss scientific questions, achievements & challenges in this rigorous investigative field.

The knowledge multiplies when shared with. You must become the agents of change wherever you serve and leave a mark in the society and among the people you serve. With knowledge, skill and confidence you can achieve miracles and collectively you can illuminate the society.

I heartily congratulate the organizers for this wonderful conference & I wish the Association of practising pathologists (APP) keeps on bringing such literary activities & laurels to medical fraternity.

Dr Arun Gupta
President, DMC

MESSAGE FROM SECRETARY, DMC

I am glad to be part of **6th conference of Association of practising pathologists** (Regd.) which is being held after a gap of 4 years due to COVID pandemic. Pandemic was a testing time for the health care providers but it also had silver lining for the microbiologists and pathologists. They got the recognition and fame during the arduous time.

Involvement in society is very crucial for the practising laboratory diagnostician as they have to educate the society about disease and the relevance of the laboratory tests.

Finally, I congratulate the team members and participants for their efforts in organizing and participating in this PATHCON-2022 and wish the conference all the success.

Dr Girish Tyagi
Secretary, DMC

MESSAGE FROM CHAIRMAN, ADVISORY COMMITTEE

It gives me an immense pleasure to note that Association of Practicing Pathologists (APP), Delhi is holding its **6th annual PATHCON & LAB EXPO 2022** on **December 17th and 18th 2022** in **New Delhi.** In this dynamic epoch of explosion of knowledge in health care science there is a constant addition of new medical knowledge from the source of our medical researchers involved in the field of Pathology, Microbiology, Clinical chemistry and other allied clinic specialties and its sub-specialties which helps us in constant improvement of patient care. This is the reason that medical professionals take the efforts and responsibility to hold such medical events like conferences, workshops, symposia, panel discussions etc. and desire voluntarily to attend it that provides a platform with opportunity to continued medical education for health professionals in improving their skills. The academic information will be delivered by the national level reputed specialists in the field of their specialty.

Development of advanced medical instruments require highly qualified and experienced engineers with long years of research, infrastructure and finances to bring out sturdy, quality based laboratory instruments with economical annual maintenance to keep a check on recurring expenditure in the instrument and its consumables without escalation in cost of laboratory tests. The exhibition of medical instruments in the Expo 2022 will give the opportunity of exchange of theoretical and practical knowledge between instrument industry manufacturers, scientists and the medical users leading to improvement in the quality of instruments and its maintenance cost. The conference will give a platform for real -time demonstration of laboratory products to the visitors and the interaction between industry academia and the product users will enhance the understanding of requirements of each other.

In keeping up with the ongoing Digitalization in all walks of life and in this age of webinars ,I am happy that APP has also kept up the pace and for the very first time organizing the conference in Hybrid mode, I congratulate APP for that. Poster presentation on online platform would be a unique experience for young pathologists to present their research work and interact with the attending specialists for further encouragement and recognition to the budding pathologists.

Congratulations to the organizing committee APP, its members, delegates, contributors and learned speakers of the scientific program who, have endeavored in organizing and participating in such a wonderful conference and; surely, it's crucially drawn out scientific program will disseminate information on advance research developments, educate and help the medical fraternity in developing better standard operative paradigm in the management of patient care.

I wish the conference a great success.

Professor K. B. Logani

MESSAGE FROM FOUNDER PRESIDENT

Dear Colleagues,

"As cases decline, Delhi to dismantle its last three Covid Care Centres".

But we had to wait more than two years to see these newspaper headlines. Social isolation disrupted work and family routines and economic instability globally disrupted human psychology and mental health. These headlines give us great relief after a couple of years, clouds of uncertainty have disappeared, and we are inching towards normalcy.

Though the pathology community introduced digital mode a few decades ago, allowing pathologists to collaborate remotely and improve diagnosis techniques and accuracy by sharing images and data across laboratories, but all these improvements needed approval and recognition in a formal physical meeting.

The covid pandemic changed the scenario altogether. With the advancement of the telecommunication system, it is now possible to organize international conferences with participants connected in more significant numbers sitting thousands of kilometres apart. Moreover, online mode is now an established procedure.

I am glad that the Executive Committee of the APP, under the leadership of President Dr Neeraj Jain and Secretary Dr Rajan Varma, has decided to organize a 2022 Edition of Pathcon in "Hybrid: Online + Physical" mode.

I wish the Team APP Good Luck in this and all future endeavours.

Best wishes,

Dr Rakesh Sharma
Founder President

MESSAGE FROM ADVISOR

It gives me an immense pleasure to present to you the most awaited annual event of the Delhi Chapter of Asscociation of Practicing Pathologists (APP), THE PATHCON 2022 , in a new format. Be it about the Venue or Organization level or the Conference level per se. As according to the need of the hour .in the post Covid era ,THE PATHCON 2022,this year, will be held in **Hybrid Mode, at Taj Vivanta, Dwarka ,New Delhi on 17th AND 18TH Dec'22**.

At the Organizational Front, after having worked tireless, selflessly for more than 15 years for the APP, initially as a Secretary then as President, I decided to take a back seat ,will call for the shots as as an Advisor, while I pass on the baton. THE APP now boasts of a new President in Dr Neeraj Jain, who has been a pillar of the APP for all these years. The young and enterprising, Dr Rajan Verma as the New Secretary, and a whole lot of new young, energetic ,and ambitious Executive and the organizing committee, whom I want to carry the APP to new heights.

The recent Pandemic of Covid,has been a game changer in the history of human civilization ,and so how could APP not affected by it, and we were not able to conduct our annual academic bonanza followed by the equally fun filled musical evenings and exploring the extacuricullar talent of our pathologists in our banquets but as there is always light at the end of a dark tunnel, we are back with another episode of PATHCON, and I welcome all the faculty delegates and our participating industry partners who always stood by us and were also a source of inspiration in giving us a confidence in hosting PATHCON 2022 .

Wishing everyone all the very best for PATHCON 2022

Yours Very own

Dr Subodh Gupta
Advisor and Immediate Past President

MESSAGE FROM PRESIDENT APP

I have had the honor of serving Association of Practicing Pathologists in different capacities over the years - as an executive member, as the treasurer for 6 years, as the secretary for 8 years and now as president. Throughout my experience with the organization, I can say with confidence that APP has been committed to the welfare of its members through various initiatives, such as Quality Assurance Programmes, Scientific sessions, Fellowships and meetings with Government Agencies. We hope to take forward the excellent work in the years to come.

APP and all its members continue to have the support of our patron, Dr. S.K. Sood. With his blessings, we will now meet in person for the first time since onset of COVID-19 on December 18, 2022 for Scientific Session and Lab Expo. Message to Dr. Sood - Sir, we shall miss you here in person and hope you are in the best of health at home in Malaysia.

We hope to bring together a wonderful programme that stimulates our clinical knowledge and scientific intellect and will further enrich our diagnostic skills. All the workshops, panel discussions and keynote lectures shall follow an interactive approach for ensuring optimal knowledge sharing.

Once again we welcome you all to the heritage of the city of Delhi to participate in the **Pathcon & Lab Expo 2022**. We are sure that all of you will have pleasant time in this mega academic fest and have lots of sweet memories to carry back home.

Dr Neeraj Jain
Organising Chairman & President APP

MESSAGE FROM SECRETARY APP

It has been a great honour to get the opportunity to helm the affairs of APP, Delhi. When our team took over in April 2022, we were just emerging from the shadows of Covid-19 . The first task before us was to bring the activities of our esteemed organization back on track.

As a highly quality conscious organization of Pathologists, our priority was to restore our Quarterly academic program, which we did with great success. In addition, our External Quality Control Program VILAC, has flourished for the benefit of members.

A major highlight of our tenure has been the organization of Pathcon - an academic and professional fiesta - after 4 years! This event is a platform for sharing knowledge and expertise in the field of pathology, and provides a unique opportunity to network with colleagues. The virtual leg of this conference has helped to extend its reach nation-wide. I hope the various sessions and workshops offered during the conference, help to expand your knowledge and skills in the field. This souvenir being released on the occasion of **PATHCON & LAB EXPO 2022** also contains glimpses of the academic gems on display at the conference.

Going forward, I hope to continue receiving your support and blessings in all activities of APP including the launch of our APP Certification Programme . We have a vision of increasing our reach and membership as well as going digital on our VILAC Program for Histopathology. This will help us to have a national reach. We also wish to expand our academic program.

Thank you all for your participation. Wish you a happy and healthy 2023!

Dr Rajan Verma
Organising Secretary

MESSAGE FROM SOUVENIR CHAIRPERSON

It is with deep gratitude and measure of satisfaction that I present to you the **6th edition of Souvenir of Pathcon 2022.** I am thankful to the organizing committee for continuously endowing this responsibility.

It was in 2018 , that the annual academic bonanza of Delhi Chapter of Association of Practising Pathologist took a pause for a breather after 5 Consecutive episodes, and then came the Pandemic of COVID 19,which changed the World .But once again in 2022 the Pathcon is back with same valor and enthusiasm but in a new Hybrid format to reach our distant admirers both in India and around the Globe.

Sir William Withey Gull, Once said, The road to the clinic passes through the Pathology Museum, and not through the Pharmacisists shop, and this was conceived as the motto of Pathcons,as we continuously strive for imparting latest information and knowledge to our distinguished participants through our eminent and very experienced faculty in their own fields in our workshops and lectures. Though some may say, that our topics are sometimes repetitive but keeping up our tradition of being practicing pathologists, these common topics are usually the pit stops where we get stuck during our day to day practice and our primary objective is that, our members overcome these difficulties .Our another objective has also been to introduce to our young new upcoming generation pathologists to introduce them to highest standards of Quality Control measures in a clinical laboratory set up, and our poster presentation topics make them aware in recent developments in pathology.

The world is moving with a very rapid pace and so are the diagnostic laboratories, Pathcon through our Industry partners not only we add the glamour but through their exibitions ,we visualize the lateststs trends in lab medicine ,which serve as a path breaking and exchange of ideas to serve the community better.

As, Dr APJ Kalam, Former President of India once said, "To succeed in your mission, you must have a single minded devotion to your goal." At Pathcon we precisely try to do the same.
On Behalf of Organising committee of PATHCON 2022 and APP,I welcome all our delegates, faculty and Industry partners to Pathcon and Lab Expo 2022 at Vivanta by Taj on 17th and 18th Dec 20022, Dwarka, NewDelhi. Hope to have pleasant memories to take away.

Dr Vagish Dave
Organising Co-Secretary

THE ASSOCIATION OF PRACTISING PATHOLOGISTS

The Association of Practising Pathologists was founded in the year 2001 by a group of twenty odd post graduate pathologists, practicing laboratory medicine in Delhi and NCR. The association was registered under S.R. Act of 1860 (Punjab Amendment Act of 1952). As of today the association has around 300 qualified members. "APP was granted the status of a stake holder by International laboratory Corporation (ILAC) in its annual conference in Sydney in 2007

Aims & Objectives

In the last two decades, there has been a quantum jump in technology and computerization. Keeping in view of such advancements in the field of Pathology and Laboratory Medicine, the APP resolved to have the following three primary aims & objectives:

A. Quality Assurance

To apprise its members on current concepts of quality control, internal auditing, management and assurance, the Association organizes regular workshops and seminars for its members.

In order to improve confidence of its members an External Quality Assurance Programme VILAC - "Voluntary Inter Laboratory Comparison Programme," the official Proficiency Testing Programme of APP is being offered to its members since 2001. VILAC is the most comprehensive & economical Quality assurance programme which covers Hematology, Biochemistry, immunoassays, Hb A1C, Hb A2, and Microbiology including cultures. The member participants have developed a sense of accomplishment and confidence over the years as they now meet the high standards of quality assurance. This tremendously benefits the Patients as well as the Clinicians.

B. Continued Medical Education (CME)

To keep members abreast with recent advances, the association organizes Quarterly Symposiums, Seminars, workshops etc. The duration varies from 3-4 hours and 3-4 eminent Indian and International speakers are invited to discuss and deliberate on topics of mutual interest Till date we have organized 81 such CME activities without any break!

C. Fellowship

To meet fellow pathologists and understand their difficulties and share their experiences. In last 81 meetings, attendance has always been excellent. Now member pathologists feel comfortable and friendly with each other rather being competitive.

D. APP Certification:

In 2022, APP has taken up a pilot project of Certification and Accreditation of its members on voluntary basis.

E. About Pathcon & LAB EXPO

In 2014, APP decided to convert its annual conference into a national one, in the form of PATHCON & LAB EXPO. It was being organized for two days (Saturday & Sunday) in December every year since 2014. Due to an unprecedented outbreak of the Pandemic of COVID 19 we were unable host the Pathcon, but this year, the Executive committee of APP decided to organize PATHCON & LAB EXPO 2022 on 17th-18th December at Vivanta, by Taj, Dwarka, New Delhi. The Deviation from the previous conferences, is that this year Day one will be an online affair, while main conference will be held in hybrid mode. Extra Efforts have been made to make this mega event a grand success this year too. Our Industry partners have like all the previous years have given us an extraordinary response for The Expo, and hope to have maximum participation from Diagnostic & Medical Industry, making it the biggest so far!

The Pathcon will consist of twelve workshops online on the 17th Dec'22, while the Conference will be on the 18th Dec, at Vivanta, Dwarka, as Hybrid mode, in which topics of mutual interest including quality assurance, applied aspects and recent advances will be held covering the entire field of Pathology & Laboratory Medicine. Lab Expo will be organized on 18th only and will boast of stalls managed by the top Diagnostic & Medical Companies and healthcare societies. Latest machines and technologies will be on display.

The conference being an hybrid shall have no participation cap of for delegates unlike our previous Pathcons which includes members of APP, Pathologists, Laboratory Consultants and post graduate students of pathology and laboratory medicine. The registrations will be done on first come first serve basis. It will not be an understatement to say that Pathcon this year also boasts of hundred odd national and international faculty form the top institutions.

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PATHCON 2022 COMMITTEE

Patrons

Lt. Gen. J R Bhardwaj, Delhi

Prof. S K Sood, Delhi

Advisory Body Chairman

K B Logani, Delhi

Founder President

Rakesh Sharma, Delhi

Organizing Chairman

Neeraj Jain, Delhi

Organising Co-Chairman

Alok Jain, Delhi

Organising Secretary

Rajan Verma, Delhi

Organising Co-Secretary

Vagish Dave, Delhi

Conference Advisor

Subodh Kumar Gupta, Delhi

Members

Advaita Gahlot	Gunjan Kansal	 Nishit Gupta	 Savita Sachdeva
Anil Gupta	Himanshu Sachdeva	 Parminder Singh	Seema Bhatnagar
 Anju Gupta	Juhee Chandra	 Pradeep Suri	Sherry Khanna
 Anupama Arya	 Kalpana Jain	 Prashant Goyal	Sonal Jain
Ashok Kataria	 Maninder kaur	 Rachna Singh	Sonia Nagyal

Members

Ashok Kumar	Mudit Agarwal	 Rinu Goyal	 Vaibhav Girotra
 Atul Kapila	 Nakshatra Agarwal	 Rohini Kalhan	 Vibha Malik
BC Gupta	 Neena Bhatia	 Salil Narang	Vibha Tomar
Dilip Kumar	Neha Trivedi Kaushik	 Savita Nagpal	Vikrant Bansal

FACULTY

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Lab Director,
BLK Hospital, Delhi

Dr. Arvinder Singh
CEO and CMD
Arth Diagnostics

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Consultant,
Cytology Laboratories, Kolkata

Dr. Barnali Das
Consultant – Biochemistry &
Immunology, Kokilaben Dhirubhai
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Head Quality Max Lab, Max
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Sanjay Gandhi Post Graduate,
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TMMC&RC, Moradabad

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Lab Army Hospital,
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VMMC & Safdurjang Hospital,
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Alumnus of Grant Medical College, Mumbai

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MELAP, New Delhi

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Dr. Oves Siddiqui
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Dr. Suri Lab Pvt Ltd, New Delhi

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Air Commodore, Med Services (HR), Prof (Path & GI Path)
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Dr. Rohini Kalhan
Director, Alaknanda Diagnostics, New Delhi

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Dr. S.M. Kantikar
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Professor of Pathology and Uro-Oncology, Dept. of Pathology Tata Memorial Centre, Mumbai

Dr. Savita Nagpal
Director, Dr Savita Nagpal's Laboratory, Founder Member of Association of Practicing Pathologists & presently Vice President

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Dr. Sonal Sharma
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Dr. Sonal Jain
Founder of Aashi Care Telepathology, Hematology Solutions

Dr. Sonal Saxena
Director, Professor & HOD, Dept. of Microbiology, Maulana Azad Medical College, New Delhi

Dr. Sonia Nagyal
Consultant Pathologist, SMVD Narayana Superspeciality Hospital, Katra, Jammu

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Professor & HOD, Dept. of Microbiology Vinayaka Mission's Kirupananda Variyar Medical College, Salem, Tamilnadu

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Consultant Microbiologist, Bangalore

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Dr. Suchitra Jain
Senior Microbiologist
Max Hospital, New Delhi

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Additional Diector,
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Co-ordinator Infection Control
Jaypee Hospital, Noida

Dr. Rinu Goyal
Consultant Pathologist and Head-Laboratory, Sitaram Bhartia Institute of Science and Research

Dr. Tathagata Chatterjee
Former Head of Lab Sciences & Molecular Medicine AHRR, Delhi and Head IHBT, AFMC, Pune

Dr. Vibha Malik
Director, Dr Vibha Diagnostics, Moradabad

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GB Pant Hospital, New Delhi

Dr. Vaibhav
Consultant Pathologist
Dr Vaibhav's Pathocity Path Lab & Imaging, MGS Superspeciality Hospital

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Kasturba Hospital, New Delhi

Mr. Vikram Pagaria
Joint Director (Coordination),
National Health Authority

Dr. Yogesh Kumar
Professor & Senior Clinical Embryologist,
Shridhar University

PATHCON & LAB EXPO 2022

17 - 18 December 2022

Inauguration

Vivanta By Taj, Dwarka, New Delhi

Date: 18th December 2022 | Time: 12:30 - 13:00 Hrs

12:30 - 12:35 Hrs	Floral Welcome & Lamp Lighting
12:35- 12:40 Hrs	Welcome Address by Organizing Chairperson: Dr Neeraj Jain
12:40 - 12:45 Hrs	Release of Souvenir
12:45 - 12:50 Hrs	Prize Distribution Annocument of Oral & Poster Presentations
12:50 - 12:55 Hrs	Address by Patron Lt. Gen. (Dr) J.R. Bhardwaj
12:55 - 13:00 Hrs	vote of Thanks by Organizing Secretary : Dr Rajan Verma
Followed by Lunch	

PRE LUNCH WORKSHOPS (VIRTUAL) (0900-1100HRS)

Workshop 1 (Virtual) Saturday, 17th December 2022 (0900-1100Hrs)		
Clinical applications and future trends of Hematology analyzer		
Faculty: **Dr. Pradeep Suri | Dr. Ranjana Hawaldar**		
Time	**Topic**	**Speakers**
0900-0930Hrs	RBC - Novel Parameter and their clinical applications	Dr. Pradeep Suri
0930-1000Hrs	WBC - Interpreting Scattergrams and role of emerging parameters in clinical setups.	Dr. Ranjana Hawaldar
1000-1030Hrs	Platelets - Histograms and Utility of IPF/Optical PLT - hope or hype	Dr. Pradeep Suri
1030-1100Hrs	Artificial Intelligence - Future trends in Digital Morphology	Dr. Ranjana Hawaldar

Workshop 2 (Virtual) Saturday, 17th December 2022 (0900-1100Hrs)		
Immunohistochemistry		
Faculty: **Dr. Nita Khurana | Dr. Prateek Kinra | Dr. Tathagata Chatterjee**		
Time	**Topic**	**Speakers**
0900-0940Hrs	IHC in GIT	Dr. Prateek Kinra
0940-1020Hrs	Utility of Immunohistochemistry in Breast Pathology	Dr. Nita Khurana
1020-1100Hrs	Approach to IHC in Lymphomas	Dr. Tathagata Chatterjee

Workshop 3 (Virtual) Saturday, 17th December 2022 (0900-1100Hrs)		
Hospital Infection Control (HIC)		
Faculty: **Dr. Malini Capoor | Dr. Rohini Kalhan | Dr. Rahul Kamble | Dr. Suchitra Jain**		
Time	**Topic**	**Speakers**
0900-0930Hrs	Infection control through Antimicrobial stewardship	Dr. Rahul Kamble
0930-1000Hrs	Biomedical Waste Management: Rules and Guidelines: Current and Future perspectives	Dr. Malini Capoor
1000-1030Hrs	HAI - Healthcare Associated Infections	Dr. Rohini Kalhan
1030-1100Hrs	Sterilization and disinfection in healthcare facilities	Dr. Suchitra Jain

Workshop 4 (Virtual) Saturday, 17th December 2022 (0900-1100Hrs)		
Semen Analysis		
Faculty: **Dr. Yogesh Kumar**		
Time	**Topic**	**Speakers**
0900-1100Hrs	How to perform Manual Semen Analysis: Application of Optics and software in ruling out the Inferior Laboratory Reports	Dr Yogesh Kumar

Workshop 5 (Virtual) Saturday, 17th December 2022 (0900-1100Hrs)		
Qulaity Assurance in Lab Practice		
Faculty: **Dr. Sujatha Chandrasekaran | Dr. Suryasnata Das | Dr. Dilip Kumar | Dr. Neeraj Jain**		
Time	**Topic**	**Speakers**
0900-0930Hrs	Risk Management in Medical Laboratories	Dr. Sujatha Chandrasekaran
0930-1000Hrs	Quality insurance in Microbiology Laboratories	Dr. Suryasnata Das
1000-1030Hrs	Measurement uncertainity and IQ, OQ & PQ	Dr. Neeraj Jain
1030-1100Hrs	Interpretation of IQC & EQAS	Dr. Dilip Kumar

Workshop 6 (Virtual) Saturday, 17th December 2022 (0900-1100Hrs)		
Concepts in Histopathology		
Faculty: **Dr. Brig. Jaswinder Bhatia | Dr. Santosh Menon | Dr. Aekta Shah**		
Time	**Topic**	**Speakers**
0900-0940Hrs	Potpurri of cases	Dr. Aekta Shah
0940-1020Hrs	TURBT pathology-problem, pitfalls and value in management	Dr. Santosh Menon
1020-1100Hrs	Endometrial Pathology update	Dr. Brig. Jaswinder Bhatia

POST LUNCH WORKSHOPS (VIRTUAL) (1600-1800HRS)

Workshop 7 (Virtual) Saturday, 17th December 2022 (1600-1800Hrs)		
Liquid Based Cytology		
Faculty: **Dr. Sanjay Gupta | Dr. Nalini Gupta | Dr. Neeta Kumar | Dr. Ruchika Gupta**		
Time	**Topic**	**Speakers**
1600-1630Hrs (Including 5min.Q/A)	**Overview of Liquid Based Cytology** - Technique - Important players - Low cost devices - Comparison with Conventional - Uniform reporting of cervical smears- TBS 2014	Dr. Ruchika Gupta
1630-1700Hrs (Including 5min.Q/A)	**Normal cervical smear and Cytology of Squamous epithelial cell abnormalities of uterine cervix** - Normal components of Dr Sanjay Gupta cervical smear - Common smear patterns - Squamous ECA- ASC, LSIL HSIL - Patterns & Pitfalls	Dr. Sanjay Gupta
1700-1730Hrs (Including 5min.Q/A)	**BCC, infections and Glandular abnormalities of uterine cervix** - Reactive cellular changes - Specific infections - Glandular lesions-endocervical and endometrial	Dr. Neeta Kumar
1730-1800Hrs (Including 5min.Q/A)"	**International System of Reporting Serous Fluid Cytology and role of LBC** - Current Reporting Guidelines for Serous - Fluid Cytology - Morphology of lesions on LBC of Serous fluids - Role of Cell blocks and ICC in diagnosis	Dr. Nalini Gupta

Workshop 8 (Virtual) Saturday, 17th December 2022 (1600-1800Hrs)		
Molecular Diagnostics in Infections		
Faculty: **Dr. Sonal Saxena I Dr. Oves Siddiqui**		
Time	**Topic**	**Speakers**
1600-1630Hrs	Introduction and Essentials of Molecular Diagnosis	Dr. Sonal Saxena
1630-1700Hrs	Practical approach and virtal lab visit	Dr. Oves Siddiqui
1700-1730Hrs	Quality control in molecualr diagnosis	Dr. Oves Siddiqui
1730-1800Hrs	Open house and Q/A session	Dr. Sonal Saxena & Dr. Oves Siddiqui

Workshop 9 (Virtual) Saturday, 17th December 2022 (1600-1800Hrs)		
Biochemical Profile Interpretation		
Faculty: **Dr. Nalini Arora | Dr. Vinita Sarbhai | Dr. Barnali Das**		
Time	**Topic**	**Speakers**
1600-1640Hrs	Maternal Serum screening	Dr. Nalini Arora
1640-1720Hrs	Lab investigation of female infertility	Dr. Vinita Sarbhai
1720-1800Hrs	Interpretation of Thyroid profile	Dr. Barnali Das

Workshop 10 (Virtual) Saturday, 17th December 2022 (1600-1800Hrs)		
Approach to Coagulation profile		
Faculty: **Dr. Gaurav Chhabra I Dr. Ruchi Gupta I Dr. Dinesh Chandra**		
Time	**Topic**	**Speakers**
1600-1640Hrs	Approach to bleeding Disorders	Dr. Gaurav Chhabra
1640-1720Hrs	Pre analytical variables in coagulation laboratory	Dr. Dinesh Chandra
1720-1800Hrs	Case based learning in coagulation disorders	Dr. Ruchi Gupta

Workshop 11 (Virtual) Saturday, 17th December 2022 (1600-1800Hrs)		
Fungal Spectrum in Human Microbiology		
Faculty: **Dr. Shukla Das I Dr. Sonal Sharma I Dr. Chhavi Gupta I Dr. S Mathavi**		
Time	**Topic**	**Speakers**
1600-1630Hrs	Emerging Microbiological approaches in fungal diagnosis	Dr. S Mathavi
1630-1700Hrs	Integrated Diagnostic Approach to Fungal Infections - Panel Discussion	Dr. Chhavi Gupta
1700-1730Hrs	Smear interpretation of fungal infection	Dr. Shukla Das
1730-1800Hrs	Histopathology of defungal infection	Dr. Sonal Sharma

Workshop 12 (Virtual) Saturday, 17th December 2022 (1600-1800Hrs)		
Economics of Opening a New Lab		
Faculty: **Dr. Arvinder Singh | Dr. Milind Bhide**		
Time	**Topic**	**Speakers**
1600-1630Hrs	Keynote session & introduction of Transasia	Dr. Neeraj Jain, MD
1630-1700Hrs	Setting up a new lab	Dr. Deepa Dave
1700-1730Hrs	25 year journey of a lab	Dr. Arvinder Singh
1730-1800Hrs	Role of IT and automation in a clinical lab	Dr. Milind Bhide
	Vote of Thanks	Mr. Bhuwan Puri

CONFERENCE PROGRAM

Day 2, Sunday 18th December 2022 (Hybrid)		
Time	**Topic**	**Speakers**
0900-0910Hrs	Ethics in Medical Practice	Dr. Neeraj Jain
0910-0930Hrs	New age patient engagement	Mr. Parag Khare
0930-1030Hrs	CT Guided FNABC and Cell Block study of primary mediastinal Germ Cell Tumour	Dr. Asitava Mondal
1030-1100Hrs	**TEA BREAK**	
1100-1130Hrs	Clinical Application and Future Trends of Hematology Analyzer	Dr. Anil Handoo
1130-1200Hrs	Hematosphere: Challenges and Solutions in Haematology Laboratory	Dr. Manish Karekar
1200-1230Hrs	Harnessing cell counters to get scores and automated indices	Dr. Jyoti Kotwal
1230-1300Hrs	**Inauguration**	
1300-1400Hrs	**LUNCH**	
1400-1430Hrs	Legal Perspectives in Pathology practice	Dr. S.M. Kantikar
1430-1500Hrs	Let's Talk TB	Dr. Pradeep Suri
1500-1530Hrs	ANA Testing by IFA	Dr. Vinita Batra
1530-1600Hrs	Looking at Peripheral Smears the digital way - Real World Experience	Dr. Sonal Jain
1600-1630Hrs	The round cells in Histopathology	Dr. Nalini Bansal
1630-1645Hrs	Advantages of ABDM for Pathologies & LIMS users	Mr. Vikram Pagaria
1645Hrs	**Valedictory**	

SPEAKER PRESENTATIONS

CT guided FNABC of Primary Mediastinal Germ Cell Tumours (GCT) with Cell Block Study.

Dr. Asitava Mondal
MD (PGIMER Chandigarh)
Clinical Cytologist and Oncopathologist, Kolkata

Primary mediastinal germ cell tumours (PMGCT) constitute, 3–4% of all germ cell tumours (GCT). They account about 16% of mediastinal tumours in adults and 19–25% in children.These tumors have similar histopathological characteristics, cytogenetic abnormalities, and tumor marker expression as its counterparts in gonads, though diverse clinical and prognostic features exist.

PMGCT commonly presents the anterior mediastinum in the post-pubertal and adolescent males with superior mediastinal syndrome. Histologically the entire gamut of GCT occurs from mature and immature teratoma, seminoma, yolk sac tumour, choriocarcinoma, embryonal carcinoma and mixed germ cell tumours.

Establishing the diagnosis of PMGCT and definitive characterization is quite challenging, compared to the other sites, as the diagnostic material in most of the cases is usually in the form of small needle core biopsies, which need immunohistochemistry(IHC) confirmation and all components of GCT might not be truly representative in these core biopsies.

Somatic malignancies can occur rarely in GCT,as individual case reports. Sarcomatous transformation commonly occurs in teratomas with an aggressive clinical course. CT guided FNABC from multiple sites of mediastinal GCT with ancillary techniques like Cell Block study with IHC usually give a diagnostic accuracy of around 95%. In present study all types of GCT of mediastinum were diagnosed including Teratocarcinosarcoma, Immature teratoma with malignant components [Type-4] and an interesting case of Post Radiation Osteosarcoma of Sternum in a case of recurrent Seminoma.

The overall outcome of GCT is worse in mediastinum compared to the gonads. Most PMGC tumours grow into large size. Chemotherapy and radiation are preferred modes of treatment according to the type and grade of these tumours. Surgical excision is hardly required except in some rare tumours.

Harnessing cell counters to get scores and automated indices

Prof(Col) Jyoti Kotwal
MD, PDF Haemat, MAMS, FRCP Edin

Automated Cell counters have come a long way since the days of first Coulter counter and have become the way of life and manual indices are a thing of the past. In the 1990s with the automated three part cell counters the most popular indices to distinguish cases with low MCV became the Mentzer index based on ratio of RBC count to MCV and the Bessman index which was the RDW CV% to distinguish iron deficiency from Thalassemia. The cell counters have now come up with automated calculated index to further reduce manual calculation. With the advancement of cell counter technologies beyond impedance many new scores are available calculated as part of the report. One such parameter is the reticulocyte production index (RPI). The reticulocyte interpretation is problematic in cases with anemia. A moderately increased Reticulocyte count does not indicate strong regeneration of erythropoeisis, but merely shortened life span of the red cells and thus to get an indication of efficiency of the bone marrow we go in to correct the Reticulocyte for Hematocrit (Hct). The reticulocyte maturation time is is higher in peripheral blood in cases with anemia. The RPI takes into account both Hct and Reticulocyte survival and is a cumbersome manual calculation. Now with an automated calculated RPI helps in cases with anemia where RPI < 2% indicates inadequate production and >3% indicates compensatory over production many indices have come up using the parameters like hypo red cells, micro red cells etc. to discriminate Ida from thalassemia.

In India, there is a high burden of infections like tuberculosis, acute viral infections like dengue and malaria which are common causes of monocytosis. This increases the workload of smear examination to identify haematological malignancies that requires analysis by highly trained and experienced Pathologist for all cases with a flag for monocytosis. In contrast "Mono- dysplasia score" is obtained with a simple CBC on an automated cell counter, is operator independent, objective and doesn't require high level of expertise. We studied the utility of Monoscore to differentiate haematological malignancies form reactive monocytosis. A monoscore 0.160 is the discriminant score as per western literature and needs to be studied in Indian population where reactive monocytosis is more common We studied the same in in1257 samples with monocytosis out of which 41 samples were confirmed chronic myelomonocytic leukemia and 126 were other hematological maligancies. A cut of 0.212 showed a sensitivity of 97.6% and specificity of 96.4% to differentiate reactive monocytosis form hematological malignancies while a cut off of 0.267showed 100% sensitivity and 79.2 % - 96.9 % specificity for differentiating CMML from other hematological malignancies and reactive causes of monocytosis.

Biomedical waste management: Rules and Guidelines: Current and Future Perspectives

Dr Malini R Capoor
Professor, Microbiology, Incharge BMW and Incharge Kayakalp
Department of Microbiology, VMMC and Safdarjung Hospital Delhi

India implemented Biomedical Waste Management (BMWM) rules first in 1998 and then a more comprehensive legislation- BMWM rules, 2016 and their amendments in 2018 and 2019 from MoEF & CC. Training, seggregation of BMW at point of generation in various colour categories, no secondary handling of BMW, health checkup, immunization, authorization, annual report, BMW records, inspections, logbooks, pretreatment of lab waste, BMWM Committee, adequate separate BMW sanitation workers, nodal officers and sisters etc are crucial as per Rules. As Occupier the vicarious responsibilty of BMWM lies with generator of BMW and the fines and punishment are strict.

COVID19 was declared as a pandemic in March 2020. COVID-19 pandemic and it's consequent biomedical waste due to increase use of PPE is an unprecedented challenge. GoI responded with stringent guidelines from central pollution control board (CPCB) under MoEF & CC. CPCB brought out specific guidelines for handling, treatment and disposal of waste generated during treatment, diagnosis, quarantine of COVID-19 patients on 18 March 2020. These guidelines were revised four times in 2020 (Revision1,2,3,4) and fifth time in 2022, April and Immunization waste guidelines 2021. These guidelines for management of waste generated during diagnostics and treatment of COVID-19 suspected or confirmed patients, are required to be followed by all stakeholders in the hospital doctors, nurses, technicians, sanitation staff in addition to existing practices under BMWM Rules, 2016 as amended.

The treatment of biomedical waste has become a significant issue and concern for medical facilities and the environment. Bio-medical unregulated waste becomes a significant public health problem that poses a severe threat to human health and safety and the environment of future generations. Biomedical waste depends on multiple factors and is generated from health care facilities and institution generating BMW.

For biomedical waste disposal the best practices implementation in HCF following measures need to be taken:

1. To prevent infection by maintaining good hygiene and sanitation.
2. To protect the patient, patient attendants and all health care personnel from avoidable exposure to infection from BMW
3. To prevent injuries and other health hazards from biomedical waste
4. To prevent environmental pollution to prevent infection and pollution spreading to community
5. To manage waste in a clean, healthy, economical and safe manner.
6. To minimize waste
7. Steps in Waste Management Segregation, Pre-treatment, Collection, On-site Transportation, Storage, Off-site transport, Final disposal needs to be done following the safety norms and environmental safety parameters

Challenges in Lab Medicine -Quality Assurance

Dr. Neeraj Jain MD (Path)
Founder President, MELA
Paschim Vihar, New Delhi

In healthcare today, medical laboratories are key partners in ensuring and maintaining patient safety, and it is seen that laboratory results influence approx. 70% of medical decisions. Quality standards of the laboratory plays a major role in ensuring the correctness of these results, providing better patient care as a whole and promoting excellence. While the absence of the same may lead to unreliable results, causing a delay in treatment, misdiagnosis and an increase in cost due to a need for retesting. COVID-19 Pandemic has affected everyone globally & correct lab diagnosis is very important. Therefore, ICMR has made it mandatory to allow only accredited labs to perform RT-PCR test.

Good quality is never brought about by accident; it is almost always the cumulative result of sincere intentions, dedicated effort, intelligent direction and skilful execution. As a choice, good quality may not necessarily be the easiest or the cheapest; however it is definitely the wisest for both patient health and welfare as well as laboratory credibility.

International standard ISO15189, based upon ISO17025 and ISO9001 standards, provides the basic requirements for establishing competence and serves as the bible for quality in medical laboratories. And while this serves as an excellent guiding principle, no matter how good the quality mechanisms are on paper, truly good quality cannot be achieved if theory is not translated into practice day-in and day-out.

The entire process of managing a sample must be considered including the beginning i.e sample collection to end i.e reporting and saving results.
Laboratory tests are influenced by :

- Lab environment
- Knowledgeable staff
- Reagents and Equipment
- Quality control
- Communications
- Process management
- Occurrence management
- Record keeping

Following are the Quality essentials which act as building blocks for quality management.
Personnel: Human resources, job qualifications ,job descriptions, orientation, training, Competency assessment, professional development, continuing education.

Equipment: Acquisition, installation, validation, maintenance, calibration , trouble shooting, service and repair, records.

Purchasing and inventory: Vendor qualification, supplies and reagents, critical services, contract review, inventory management.

Process control: Quality control, sample management, method validation, method verification.
Information Management: Confidentiality, Requisitions, logs and records, reports, computerised laboratory information system(LIS)

Documents: Creation, revision and review, control and distribution.

Records: Collection, review, storage , retention.

Occurrence Management: Complaints, mistakes and problems,documentation, root cause analysis, immediate actions, corrective actions and preventive actions.

Laboratory Assessment:
Internal: Quality indicators, audit reports, audit reviews.
External: Proficiency testing ,inspections, accreditation.

Process improvement: Opportunities for improvement (OFI), stakeholders feedback, problem resolution, risk assessment, preventive actions, corrective actions.

Customer Service: Customer group identification, customer needs, customer feedback.

Facilities and Safety: safe working environment, transport management, Security, Containment, waste management, Laboratory safety, ergonomics.

Implementing an efficient Quality Management system does not guarantee a 100% error free laboratory, but it goes a long way in detecting errors that may occur commonly, and prevents them from recurring. It essentially puts us on the path to continuous improvement, and brings us closer to our vision of bettering healthcare facilities every day.

There is a cost associated with Quality, but are we cognizant of the fact that poor quality costs us even more? Quality costs can be offset by quality payoffs like enhanced reputation, loyal clientele, reduced system failures & machine downtime, less need for retesting for complaints etc. However there is no offset for medical implications that may be caused by poor quality, and its impact on not just the laboratories in question but on healthcare as a whole.

Thus, implementing and maintaining good quality standards in laboratories is no more a choice, as it is not just the ethical and moral duty of all laboratories to provide accurate, reliable results, but it is essential to all aspects of healthcare and the medical profession.

Morphology of Cervical Infections and glandular lesions in Liquid based cytology

Dr Neeta Kumar
Professor and Head, Dept of Pathology, Jamia Millia Islamia, New Delhi

Alterations in Morphology: The changes occurring in LBC preparation are easy to adapt although there is a learning curve following which one can screen.

1. NILM category (negative for intraepithelial lesion or malignancy) includes Reactive cellular changes due to inflammation, degeneration, hormonal effects, trauma, IUCD and radiation etc. and Specific infections

Reactive cellular changes also known as Benign cellular changes: Cytoplasmic changes include Perinuclear halos, Intracytoplasmic vacuoles, Amphophilia/Increased Eosinophilia , Fuzzy cellular outlines and Infiltration of the cells with polymorphs. Nuclear changes include: Nucleomegaly , Binucleation/ Multinucleation, Karyolysis, Karyorrhexis, Pyknosis,Wrinkling

Squamous metaplasia shows cells of parabasal type with moderate cytoplasm and decreased N:C ratio. They have tendency to form sheets of cells. Cells have multi-angular shape with pulled out cytoplasmic processes. Immature squamous metaplasia is often the source of misinterpretation. The cells show sheets of small cells, narrow rim of immature cytoplasm, large nucleus, and multiple nucleoli. Chromatin pattern is always helpful to avoid overcall.

Immature metaplastic cells may appear smaller in LBC preparations giving the false impression of increased nuclear cytoplasmic ratio. In inflammatory smear leukocytes seen in a streaming pattern caught up in mucus in conventional smear. However this pattern is lost in LBC. Leucocytes are spread out all over or may just cling to epithelial cells.

Common cervicovaginal infections that are detected in pap smear include trichomonas, bacterial vaginosis, candida, actinomyces, Herpes Simplex. Although pap smear cannot be always trusted to diagnose these infections, It is important to recognize the cytopathic changes that are associated with these infection. These are psudokoilocytosis, nucleomegaly, parakertaosis etc. These changes sometimes may mimic and misinterpreted as precancerous epithelial abnormalities.

On LBC the Trichomonas appear smaller than usual. Internal structure is better appreciated and the classical Trichomonas associated background changes are maintained. Candida, Herpes and actinomyces are visualized clearly. LBC smear shows clue cells of bacterial vaginosis, however lacks filmy sandy background that is seen in conventional smear. Blood mucous, inflammatory exudate and necrotic debris often clump as cling to epithelial cells.

2. Glandular cell abnormalities classified as AGC NOS, AFC FN, AIS and invasive Adenocarnoma. (Refer the Bethesda 2014 atlas for diagnostic criteria.)

LBC has more single cells and small clusters.There is in general a loss of relationship between cells. The background is cleaner than in conventional smears. It is therefore easier to identify normal and abnormal cells.

Clumps and sheets of epithelial cells are generally smaller than those seen in conventional smears. There is a dispersal of abnormal cells.

Normal Endocervical cells may appear slightly smaller. The typical honeycomb appearance is still seen. Bare nuclei are less frequent. Nuclei appear crisper and chromatin more granular. The cells may be rounded up or twisted due to processing artifact. Chromatin alterations are more crisp and detailed especially in surepath. Tumour diathesis" can still be recognized in LBC preparation.

Endometrial cells are seen better preserved in LBC preparations. RBCs are lyzed therefore endometrial cells are clearly seen in clusters as well as singly..

Exuberent reactive endocervical cells (ECC) can be sometimes misinterpreted as Atypical glandular cells (AGC). These are arranged in 2-Dimensional Honey comb sheet with minimal overlapping in contrast with AGC which shows usually 3- dimensional clusters. HCG is the trigger for AGC and each such cluster need evaluation under high power. Note that reactive cells never form papillae, balls, acini or rosettes in contrast with Neoplasia. Mitosis possible but be careful to exclude neoplasia. Bi and multinucleation is common. Causes of reactive change: pill, HRT, endocervicitis, polyp etc

To conclude:

1. Morphology alterations in LBC are not much different from the conventional
2. Rapid fixation, the cells are well preserved – evidenced by clarity of nuclear chromatin and well visualized nuclear membranes.
3. Over all cell looks smaller due to "rounding up" effect of the liquid. leading to altered N:C ratio
4. Chromatin often take a vesicular delicate appearance
5. Cells with low grade dysplasia easy to find
6. Severe dysplasia often presents as single and dispersed cells (a feature less well recognized in CS)- may be missed
7. Specific organisms better visualized due to less crowding and monolayering
8. Clean background may lead to missed diagnosis of malignancy

Further reading

1. Neeta Kumar, Molliet M. J., Bongiovani M., Pelte M. F., Egger J. F., Pache J. C Diverse Glandular Pathologies Coexist With High- Grade Squamous Intraepithelial Lesion In Cyto-histological Review of Atypical Glandular Cells On ThinPrep. Cytopathology 2008; 20(6): 351-358
2. Neeta Kumar, Molliet M. J., Bongiovani M., Pelte M. F., Egger J. F., Pache J. C Re- classification and Analysis of Clinical Significance of Atypical Glandular Cells on Thin Prep Using The Bethesda 2001: Geneva Experience. Swiss Medical Weekly, 2007, 137:635–641
3. Richard M. DeMay, Hyperchromatic Crowded Groups Pitfalls in Pap Smear Diagnosis. Am J Clin Pathol 2000;114(Suppl 1):S36-S43

Utility of Immunohistochemistry in Breast Pathology

Dr Nita Khurana
Director Professor& Head, Pathology, Maulana Azad Medical College, New Delhi

The diagnostic journey of a breast disease starts from history of the patient and a thorough physical examination followed by radiological evaluation as indicated. The invasive procedures like Fine needle aspiration cytology and core needle biopsy are performed to ascertain the nature of the lesion broadly categorised as infective, nonproliferative epithelial lesion or proliferative lesions to be further categorized as benign and malignant which will determine the patient management . The detailed morphologic assessment is helpful for a diagnosis in most cases.

The need for immunohistochemistry arises when certain diagnostic issues need to be resolved and for use as a predictive and prognostic biomarker. The theradiagnostic issues which will be the focus of this session will include IHC as an aid to make a definite diagnosis using histomorphology as base in situations like differential diagnosis of usual hyperplasia versus atypical hyperplasia, ductal versus lobular carcinoma, carcinoma in situ versus microinvasive carcinoma, categorization of special breast carcinoma types, high grade carcinoma or metaplastic carcinoma, lymphovascular invasion, utility of IHC surrogate markers for molecular classification as luminal A and luminal B subtypes, triple negative, Her 2 enriched and basal like carcinoma, utility in papillary breast lesions, diagnosis of paget's disease from its morphological mimicks, supporting breast origin at metastatic sites and theradiagnostic uses including assessment for immune therapy.

LET'S TALK TB

Dr. Pradeep Suri, M.D. (Pathology)
Director, Dr. Suri Lab Pvt Ltd., New Delhi, 110005

This presentation will broadly cover the following aspects of Tuberculosis,

a) Burden of TB in India.
b) Types of Tuberculer infection.
c) Laboratory Investigations of TB.
d) TB Diagnostic Technologies endorsed by WHO.
e) Tests for latent Tuberculer infection.
f) Tests for Active Tuberculosis.
g) Molecular Diagnostic Techniques.
h) Work Flow of True Nat MTB.
i) Sample Types used in testing.
j) Performance v/s patient diagnosis.
k) WHO policy recommendations.
l) Definitions of TB Resistance.
m) Publications.

HOSPITAL INFECTION CONTROL: Healthcare Associated Infection(HAI)

Dr. Rohini Kalhan
MD (Microbilogy)

Health care-associated infections (HCAIs) are infections that occur while receiving health care, developed in a hospital or other health care facility that first appear 48 hours or more after hospital admission, or within 48 hrs after discharge or 30 days after having received health care. Multiple studies indicate that the common types of adverse events affecting hospitalized patients are HCAIs (SSI, VAP, CAUTI and CLABSI). The US Center for Disease Control and Prevention identifies that nearly 1.7 million hospitalized patients annually acquire HCAIs while being treated for other health issues and that more than 98,000 patients (one in 17) die due to these.

Several studies suggest that simple infection-control procedures such as Bundle Care, Education, Infection Control Practices like cleaning hands with an alcohol-based hand rub can help prevent HCAIs and save lives, reduce morbidity, and minimize health care costs. Surveillance of these HAI's and focus on special group and areas as per risk assessment can help prevent these infections and thus the mortality, morbidity, hospital stay and cost .

Liquid Based Cytology: An Overview

Dr. Ruchika Gupta
Scientist D, Division of Cytopathology, ICMR-National Institute of Cancer Prevention and Research, Noida

Pap smear was devised almost 80 years ago by George Papanicolaou. The conventional method of cervical cytology has worked very efficiently for the last so many decades, with up to 80% reduction in mortality from cancer of the cervix. However, the conventional smears suffer from drawbacks such as high rate of unsatisfactory smears, uneven fixation, obscuring factors, and cellular clumping. Also, only a portion of the collected sample is transferred to the slide in conventional smears and the rest is discarded.

In order to circumvent the above-mentioned issues, **Liquid-based cytology (LBC)** was devised. LBC is a technology where cervical samples are collected in a liquid medium, thus reducing inadequate rate of cervical samples. The obscuring factors such as inflammation, blood and polymorphs are lesser in LBC slides as opposed to conventional smears. Fixation is uniform and the same sample can be used for molecular tests such as HPV detection.

How to obtain the cervical sample for LBC?
The US Food and Drug Administration (FDA) has approved two LBC Pap tests- ThinPrepTM in 1996 and SurePathTM, in 1999. LBC involves the use of Cervex-Brush to obtain the sample. The longer bristles of Cervex brush are inserted into the endocervical canal and outer shorter bristles

touch the ectocervix. The brush is rotated five times clockwise to obtain an adequate sample. The brush head is detached into a vial containing preservative fluid in SurePathTM sample. The brush head is removed after rinsing it thoroughly in the vial for the ThinPrepTM sample.
SurePath® test- Principle: Density gradient centrifugation process
ThinPrep® LBC Pap test- Principle: Filtration method

Cervical Cytology – classification systems
Papanicolaou classification was first introduced in 1943 giving five classes. Subsequently WHO classification was introduced in 1962 wherein the terms dysplasia: mild, moderate and severe were used. Soon it was replaced by CIN 1-3 by Richart in 1967. Lack of reproducibility and mismatch with biological behavior forced the pathologists, cytologists, epidemiologists and clinicians to sit together and reach a consensus to devise a newer, more acceptable and clinician friendly classification. This gave birth to the first Bethesda classification using two tier approach in 1988. In the subsequent 1991 workshop the concept of adequacy was introduced. Bethesda 2001 saw a change in the replacement of the category of AGUS by AGC (atypical glandular cells), with further attempt to identify the origin as endometrial/endocervical/unclassified. Endocervical Adenocarcinoma In Situ" And "AGC, Favor Neoplastic" were included as separate AGC categories. Bethesda 2014 proposed no new/ any change in categories, but to accommodate the need for cases with "Squamous Lesions with LSIL and Few Cells Suggestive of Concurrent HSIL", suggested that a comment regarding uncertainties of this association be made in the comments, or as LSIL with ASC-H.

The three categories of unsatisfactory, satisfactory and borderline as "limited by…." was replaced by only two categories as "satisfactory" and "not satisfactory", so as to give a clear message to the clinicians. An important change was brought "in the reporting endometrial cells" by attaching significance to their presence in "above 45 years", with a note- that it is significant in postmenopausal women.

The Bethesda system of reporting cervico-vaginal cytology consists of a systematized reporting format with mandatory items and optional points. The evaluation of a cervical smear begins with an assessment of specimen adequacy, general categorization and interpretation/ result. Ancillary testing, if performed, may be added to the report along with educational notes and comments for the referring physician. The reporting personnel has to be aware of the normal cytology and acceptable deviations from normal in various age settings.

Emerging microbiological approaches in fungal diagnosis

Dr. S. Mathavi

Fungal infections are estimated to be one of the leading causes of death accounting for approximately 1.5 million people worldwide annually. Inaddition, Invasive fungal diseases (IFDs) are becoming an increasing global burden in immunocompromised patients. We are also in the era of increasing antifungal resistance complicating the chances of survival for affected patients. New therapeutic approaches are therefore needed to face these life-threatening fungal infections.

While culture and microscopy remain the gold standard for fungal diagnosis, they are limited by sensitivity and specificity, longer turnaround time and sample collection techniques. Therefore, there is a need for more sensitive and targeted diagnostic systems, which can directly detect fungi in clinical specimens along with its drug resistance. Identification to the species level is essential for optimal treatment as different fungal species have distinct antifungal susceptibilities. In this regard, many molecular-based diagnostic approaches have good clinical utility although interpretation of results should be according to clinical context.

Advances in molecular diagnostic technologies have undoubtedly improved the landscape for fungal diagnostics and identification with rapid turnaround times and covering a broad range of fungal pathogens. Increasing experience with PCR assays to directly detect fungi in clinical specimens with clinical validation studies have made these tests a routine in many clinical laboratories.

Normal cervical smear and Cytology of Squamous Epithelial Cell Abnormalities of Uterine Cervix

Dr. Sanjay Gupta
Scientist G & Coordinator, Division of Cytopathology, ICMR-National Institute of Cancer Prevention and Research, Noida

The components of a normal cervical smear include superficial, intermediate & parabasal squamous cells, endocervical cells, lactobacillary flora and polymoprphs. Cellular morphology is essentially similar in conventional and Liquid based cervical smear. The cells are better preserved, appear smaller & more rounded and nuclear chromatin is more crisp on LBC.

Table: Cytomorphological features of Squamous Epithelial Cell Abnormalities (The Bethesda System 2014)

Cyto feature	Atypical squamous cells of undetermined significance (ASC-US)	Atypical squamous cells, cannot exclude HSIL (ASC-H)	Low grade squamous intraepithelial lesion (LSIL)		High grade squamous intraepithelial lesion (HSIL)	Squamous cell carcinoma	
			HPV-Koilocytotic change	Mild dysplasia		Keratinizing	Non-keratinizing
Nuclear size and cellular features	Nuclear enlargement 2.5 -3 times normal intermediate sq cell nucleus	Cytological changes suggestive of HSIL but lack criteria of definitive interpretation	Koilocytes- Nucleus: central/ eccentric, enlarged/condensed, irregular membrane and hyperchromatic. Large perinuclear halo. Binucleation may be seen	Increased >3 times, centrally located	Nucleus is round/oval, central with increased nuclear size	Nucleus – opaque, pyknotic Pleomorphic elongated to rounded cells - with firm cytoplasm, perinuclear keratinisation, macronucleoli	Groups of malignant squamous cells- lack keratinization
Nuclear-cytoplasmic ratio	Slightly increased			Mild to moderately increased	Moderate to high		
Chromasia	Minimal hyperchromasia		Hyperchromasia	Hyperchromasia	Hyperchromasia	++	++
Chromatin distribution	Evenly distributed			Sharp, finely granular	Sharp, more coarsely granular	Opaque	Irregularly clumped
Nuclear membrane	Smooth and regular		May be irregular	Smooth and nucleoli are absent/ rare	Angulated nuclear membrane and rare nucleoli	Irregular	Irregular
Cytoplasm			Koilocytes- Condensed cytoplasm towards periphery with sharp inner margin Dyskeratocytes: orangeophilic	Abundant with well-defined borders, thin & transparent	Moderate to scant, well defined borders, dense, variable staining Pseudosyncitia	Keratinized cytoplasm-caudate (tadpole) cells which take up Orange G	Slight to moderate Syncytia+
Slide background	Clean	Clean	Clean	Clean	Clean	Tumor diathesis +	Tumor diathesis +

The cells of LSIL are easy to pick up on LBC. The HSIL cells are dispersed singly on LBC as compared to conventional Pap. Hyperchromatic groups (HCG) are well appreciated on LBC. Malignant cells are easy to recognise on LBC due to relatively cleaner background because of reduced RBCs and inflammation. The tumor diathesis is also well visualized on LBC smears.

Potential diagnostic pitfalls occur across the whole gamut of Squamous ECAs. To a great extent, these can be resolved by careful screening of the slide, familiarity with the morphology, regular training and updates and ensuring quality assurance in the cytology laboratory.

Sterilization and Disinfection in Healthcare Facilities

The cleaning and disinfection of surfaces in hospitals is becoming increasingly important in the multi-barrier approach for preventing infection, in addition to hand hygiene and proper reprocessing of medical devices. Cleaning is the removal of visible soil (e.g., organic and inorganic material) from objects and surfaces and normally is accomplished manually or mechanically using water with detergents or enzymatic products. Thorough cleaning is essential before high-level disinfection and sterilization because inorganic and organic materials that remain on the surfaces of instruments interfere with the effectiveness of these processes.

Disinfection describes a process that eliminates many or all pathogenic microorganisms, except bacterial spores, on inanimate objects . In health-care settings, objects usually are disinfected by liquid chemicals or wet pasteurization. Each of the various factors that affect the efficacy of disinfection can nullify or limit the efficacy of the process. Sterilization describes a process that destroys or eliminates all forms of microbial life and is carried out in health-care facilities by physical or chemical methods. Steam under pressure, dry heat, EtO gas, hydrogen peroxide gas plasma, and liquid chemicals are the principal sterilizing agents used in health-care facilities

Disinfection and sterilization are essential for ensuring that medical and surgical instruments do not transmit infectious pathogens to patients. Because sterilization of all patient-care items is not necessary, health-care policies must identify, primarily on the basis of the items' intended use, whether cleaning, disinfection, or sterilization is indicated .Every healthcare facility should have written protocols to guide routine general cleaning and ensure that all areas of the environment are regularly cleaned to a satisfactory standard. Staff undertaking cleaning should follow agreed protocols and have access to adequate resources and equipment to achieve the required standard of cleaning.

APPROACH TO IHC IN LYMPHOMA

Brig Dr. Tathagata Chatterjee
MD DM FUICC FNAMS FISHBT

Immunohistochemistry is a technique that uses antigen-antibody interactions to detect specific proteins in cells. This technique has several essential applications in lymphoma diagnosis, including identifying the cell lineage and phase of maturation, detecting specific genetic alterations, visualizing the degree of cell proliferation, and identifying therapeutic targets. CD3 is a pan T-cell marker expressed on most of the mature T/NK-cell lymphomas, except for anaplastic large cell lymphoma, whereas CD20 is a pan B-cell marker that is expressed on most of the mature B-cell lymphomas. CD79a may be a good alternative to CD20, compensating for its loss owing to the plasmacytic differentiation of tumour cells or history of rituximab administration. CD56, a neuroendocrine marker, is used as an NK cell marker in lymphoma diagnosis. Characteristic translocations occurring in follicular lymphoma (BCL2) and mantle cell lymphoma (CCND1) can be detected by the overexpression of Bcl-2 and cyclin D-1 in immunohistochemistry, respectively. Ki-67 reflects the degree of tumour cell proliferation by indicating cells in cell cycle phases other

than G0. With the development of immunotherapy, several antibodies against markers such as programmed death-ligand 1 (PD-L1), CD19, and CD30 have been used as biomarkers to identify therapeutic targets. It is critical to properly fix the specimens to obtain accurate immunohistochemical results. Therefore, all processes, from tissue collection to the final pathological diagnosis, must be performed appropriately for accurate lymphoma diagnosis.

Although the presence or absence of CD5 and CD10 expression should be included in the initial immunohistochemistry screening panel for mature B-cell lymphomas, appropriate and judicial use of other B-cell antigens is necessary to ensure correct diagnoses. Furthermore, although the status of CD5 and CD10 expression is associated with certain prototypes of B-cell lymphomas, their expression is not specific. Plasma cells from plasma cell neoplasia and B-cell lymphomas exhibit overlapping but relatively distinct immunophenotypes; thus, a panel of immunohistochemical markers (CD19, CD45, CD56, and CD117) can be employed for their proper identification. Lastly, CD138 staining results are almost always positive in a group of aggressive B-cell lymphomas with plasmablastic features, including plasmablastic plasma cell myeloma, plasmablastic lymphoma, and ALK-1þ large B-cell lymphoma.

ORAL & POSTER ABSTRACTS

ABSTRACT SCHEDULE

Oral Presentations | Screen - 1

Judges: **Dr Shalini Bahadur, Dr Shivani Kalhan**

S.No	Abs ID	Abstract Title	Presenter Name	Co-Authors Name
1	102	A ONE YEAR RETROSPECTIVE STUDY OF HISTOPATHOLOGICAL LESIONS OF HEAD AND NECK	AKANKSHA AWASTHI	DR. YOGITA SINGH TOMAR
2	34	VCS PARAMETERS OF NEUTROPHILS AND MONOCYTES IN EARLY IDENTIFICATION OF ADULT SEPSIS	AKANKSHA RAJ KHANDAL	MANSI KALA, DRISHTI PARGAI
3	69	EVALUATION OF PLATELET INDICES AND IMMATURE PLATELETS FRACTION IN A NEWLY DIAGNOSED THROMBOCYTOPENIC PATIENT AT TERTIARY CARE HEALTH CENTRE	AMIT KUMAR MAHARIA	ANJANA MITTAL, SHWETA BANSAL, ARPITA MATHUR
4	39	STUDY OF HISTOPATHOLOGICAL LESION OF ENDOMETRIAL BIOPSY IN WOMEN PRESENTING WITH ABNORMAL UTERINE BLEEDING: A RETROSPECTIVE STUDY	ANANYA BAJPAI	DR. YOGITA SINGH TOMAR
5	93	CORRELATION OF PROGRAMMED DEATH LIGAND-1(PDL-1) EXPRESSION AND PHOSPHATASE AND TENSIN HOMOLOG(PTEN) ALTERATION AS DIAGNOSTIC MARKERS IN COLORECTAL CARCINOMA	ANJALI AHALAWAT	DR. SANJAY KUMAR, DR. SANT PRAKASH KATARIA, DR. SUNITA SINGH
6	82	HISTOPATHOLOGICAL SPECTRUM OF NODULO-CYSTIC LESION OF SCALP - CHALLANGE TO THE CLINICAL DIAGNOSIS.	ANJALI DUBEY	DR. S. SADAF SIDDIQUI
7	4	A SPECTRUM OF KIDNEY DISEASES IN CHILDREN AT A TERTIARY CARE CENTRE IN INDIA	ANJU KHAIRWA	ANJU KHAIRWA1,2; MD, ARUNA VISHWANATH VANIKAR2; MD, KAMAL VIMAL KANODIA2; MD, RASHMI DALSUKHBHAI PATEL2; MD, LOVELESH KUMAR NIGAM2; MD, DINESH GERA3; MD.

8	12	HISTOPATHOLOGICAL STUDY OF FIBRO-EPITHELIAL LESIONS OF BREAST AT TERTIARY CARE CENTER	ANKIT JOSHI	DR RICHA SHARMA (PROFESSOR), DR PRITI SHARMA (MD PATHOLOGY)
9	46	STUDY OF MORPHOLOGICAL SPECTRUM OF PROSTATIC LESIONS	ANKUR KATEWA	DR RISHI DIWAN
10	75	TO STUDY HISTOMORPHOLOGICAL SPECTRUM OF THYROID LESIONS IN RURAL SETUP, CENTRAL INDIA	ANUJA BHARGAVA	DR. AKSHAY SURANA
11	120	DIAGNOSTIC CHALLENGES OF TUBERCULAR LESIONS OF BREAST	ARUSHI GUPTA	ZEEBA S. JAIRAJPURI, SAFIA RANA, SHAAN KHETRAPAL, SUJATA JETLEY, SABINA KHAN
12	7	A STUDY OF COAGULATION PROFILE IN LIVER DISEASE PATIENTS IN A TERTIARY CARE HOSPITAL	ASHISH KULHARI	
13	8	SPECTRUM OF LESION IN LYMPH NODES- A CYTOLOGICAL RETROSPECTIVE ANALYSIS	ASHISH KULHARI	
14	62	EXPRESSION OF P53 IN OVARIAN TUMORS	ASHITA JAIN	DUSHYANT SINGH GAUR, ANURADHA KUSUM
15	84	SEROPREVALENCE OF HCV AMONG DIALYSIS PATIENTS ATTENDING DISTRICT HOSPITAL KHAMMAM	ASHOK REDDY KKAKUMANU	DR. ANITHA.C (ASSOCIATE PROFESSOR - MICROBIOLOGY, MAHER), DR. L. SANDEEP KUMAR, (VIROLOGY LAB INCHARGE - DH-KHAMMAM), DR. P. CHANDRA LEKHA (SENIOR RESIDENT -MICROBIOLOGY, DH-KHAMMAM).
16	118	CORRELATION OF SERUM CA-125 WITH CLINICOPATHOGICAL FINDINGS IN OVARIAN TUMOURS.	ASHWANI KUMAR	DR SANJEEV NARANG, DR PARUL MAHESHWARI, DR PAWAN BHAMBANI
17	14	A STUDY OF HISTOPATHOLOGIC SPECTRUM OF LEPROSY WITH SPECIAL REFERENCE TO ELDERLY POPULATION: A STUDY AT A TERTIARY CARE CENTRE IN NORTHERN INDIA.	ATIYA FIRDOUS SIDDIQUI	DR. APARAJITA, DR. DURRE SHEHWAR, DR. BUSHRA SIDDIQUI, R. S. H FARIDI, DR. MASTAKIM A.M.
18	97	A CLINICOPATHOLOGICAL STUDY OF 100 CASES OF SALIVARY GLAND LESIONS	ATUL MOHANRAO PAWAR	DR. RAJENDRA CHAUDHARI, DR. PREETI BAJAJ

19	116	A STUDY ON HISTOPATHOLOGICAL SPECTRUM OF LESION IN URINARY BLADDER BIOPSIES	BABEETA SAINI	DR. KUSUM HEDA
20	117	UTILITY OF RED CELL DISTRIBUTION WIDTH IN MICROCYTIC HYPOCHROMIC ANAEMIA	BABEETA SAINI	DR. KUSUM HEDA
21	135	PREVELANCE OF HIGH GRADE GLIOMA GRADE III AND IV	SURABHI MISHRA	SUDHA IYENGAR

Oral Presentations | Screen - 2

Judges: **Dr Mrinalini Kotru, Dr Richa Gupta**

S.No	Abs ID	Abstract Title	Presenter Name	Co-Authors Name
1	19	A STUDY ON CYTOPATHOLOGICAL & CLINICOPATHOLOGICAL PROFILE OF LYMPHADENOPATHY IN PEDIATRIC AGE GROUP- A COMPREHENSIVE EVALUATION OF VARIOUS CAUSES OF LYMPHADENOPATHY IN 70 CASES AT M.G.M.MEDICAL COLLEGE AND M.Y.HOSPITAL INDORE	BHADAURIYA RAJLAXMI S	PROF. DR. MEENA MITTAL, PROF. DR. ASHOK PANCHONIA, DR POOJA PRAPANNA.
2	22	MEGAKARYOCYTIC ALTERATIONS IN THROMBOCYTOPENIA- A BONE MARROW ASPIRATION STUDY.	BIJI ANITTA JOHN	DR PANKAJ SHINDE, DR POONAM NANWANI, PROF DR ASHOK PANCHONIA, DR JITHA SHAJU
3	73	COVID ASSOCIATED GUT GANGRENE SERIES OF 20 CASES – A STUDY AT TERTIARY CARE CENTRE	DEEPIKA DARJI	DR. CHETNA MEHROL, DR. MANJU RAGHAVA, DR. SONY MANDAL DR. SONAM ARYA, DR. MANUSHEE PATHAK
4	10	UTILITY OF ENDOSCOPIC ULTRASOUND GUIDED FNAC(EUS-FNAC) IN THE DIAGNOSIS OF PANCREATIC TUMORS	DIBYENDU MAJUMDER	DR R S PATIL, DR MAHADEO MANE
5	51	SPECTRUM OF TUMORS AND TUMOR LIKE LESIONS OF BONE:AN OBSERVATIONAL STUDY	HARSH KUMARI	DR MONIKA GUPTA, DR NISHA MARWAH, DR SUNITA SINGH
6	43	NECROTIZING LYMPHADENITIS A CLINICOPATHOLOGIC SPECTRUM-A STUDY AT TERTIARY CARE CENTER	HRISHIKESH SHARMA	DR. CHETNA MEHROL, DR. ANJANA MITTAL, DR. MANJU RAGHAVA, DR. PRASHANT TRIVEDI

7	103	UTILITY OF FINE NEEDLE ASPIRATION CYTOLOGY IN MEDIASTINAL MASSES: A SINGLE INSTITUTIONAL RETROSPECTIVE STUDY	JEENA THOMAS	DR. BRIJ MOHAN KUMAR SINGH, DR. VARUN KUMAR
8	3	EFFICACY OF SERUM TRANSFERRIN RECEPTOR, SERUM FERRITIN AND SERUM TRANSFERRIN RECEPTOR: FERRITIN INDICES IN DIAGNOSING AND DIFFERENTIATING PATIENTS OF ANEMIA OF CHRONIC DISEASE AND ANEMIA OF CHRONIC DISEASE WITH COEXISTENT IRON DEFICIENCY ANEMIA.	JITHA SHAJU	DR POOJA PRAPANNA, DR VEENA KUMARI BAIS, PROF DR MEENA MITTAL, PROF DR ASHOK PANCHONIA, DR BIJI ANITTA JOHN
9	55	CYTOMORPHOLOGICAL SPECTRUM OF BREAST LESIONS DIAGNOSED ON FNAC IN A TERTIARY CARE HOSPITAL, RAJKOT, GUJARAT	KINJAL KOTAK	
10	57	CYTOLOGICAL DIAGNOSIS OF MESOTHELIOMA WITH IMPORTANCE OF TWO STEP IHC MARKERS	KINJAL KOTAK	
11	58	HISTOPLASMOSIS -AN UNCOMMON INFECTION DIAGNOSED ON FNA-A CASE SERIES FROM A TERTIARY CARE HOSPITAL RAJKOT, GUJARAT	KINJAL KOTAK	
12	124	A STUDY OF THE OUTCOME OF MAJOR DEPRESSIVE DISORDER BY EVALUATING THE LEVELS OF SERUM CALCIUM, MAGNESIUM, ZINC AND URIC ACID LEVELS IN POSTMENOPAUSAL WOMEN.	KOLLI SRUJAN KANTH	DR. V. BHAVANI
13	32	HISTOPATHOLOGICAL SPECTRUM OF LESIONS OF APPENDIX- A 5-YEAR STUDY.	LAKSHMI PRIYA	DR. REEBA , DR. RINI, DR. PRABHA, DR. VIJI,DR ANU
14	109	CORRELATION BETWEEN SALIVARY AND SERUM CALCIUM AND ALKALINE PHOSPHATASE IN OSTEOPOROSIS PATIENTS	MAMTA SAGAR	DR SHUSHMA BHOPALAM JAGANNATHA
15	13	STUDY ON MORPHOLOGICAL SPECTRUM OF SKIN BIOPSY IN PATIENT OF LEPROSY	MANISH KUMAR JAIN	DR. RISHI DIWAN (PROFESSOR)
16	47	DIFFERENTIAL DIAGNOSIS OF DYSERYTHROPOIESIS IN BONE MARROW ASPIRATION AT MY HOSPITAL INDORE	MANISHA AGARWAL	DR. POONAM NANWANI

17	64	THE COMPARISON OF HAEMATOLOGICAL INDICES IN CAD AND NON CAD PATIENTS	MANSI MEHROTRA	DR D. S. GAUR, DR MANSI KALA, DR KUNAL GURURANI
18	2	HISTOPATHOLOGICAL STUDY OF GALL BLADDER LESIONS IN CHOLECYSTECTOMY SPECIMEN AT JHALAWAR MEDICAL COLLEGE - 3 YEAR RETRO AND PROSPECTIVE STUDY.	NEETU SINGH	DR. SUMIT PRAKASH RATHORE (PROFESSOR), DR. SHARDA CHOUDHARY,(PG-3YR)
19	125	SPECTRUM OF INHERITED BLEEDING DISORDER WITH SPECIAL REFERENCE TO VON WILLEBRAND DISEASE IN EASTERN INDIA.	NEHAL AHMAD	PROF. MOHD JASEEM HASSAN , PROF. SABINA KHAN, PROF. JYOTI SHUKLA
20	67	IMMUNOPATHOLOGY OF VARIOUS GRANULOMATOUS LESION	NITIN CHANDWANI	DR. SURBHI KATHURIA
21	136	PREVALENCE OF CERVICAL CANCER AMONG CERVICAL BIOPSIES IN A TERTIARY CARE CENTRE	POOJA MANGAL	Prof. SUDHA IYENGAR

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Judges: **Dr Faiyaz Ahmad, Dr. Seema Awasthi**

S.No	Abs ID	Abstract Title	Presenter Name	Co-Authors Name
1	122	SPECTRUM OF PULMONARY LESIONS IN MEDICOLEGAL AUTOPSY CASES IN J.L.N. MEDICAL COLLEGE, AJMER	NUPUR VERMA	
2	59	HISTOPATHOLOGY AND CLINICORADIOLOGY OF HEPATOBLASTOMA- SURVIVAL ANALYSIS OF AN INTRIGUING NOT SO RARE TUMOR	PAHELI MARU	DR TRUPTI PATEL, DR SHILPA KAPOOR
3	60	TERTIATY CARE CENTRE EXPERIENCE-AN OVERVIEW OF PRIMARY MEDIASTINAL LYMPHOMAS	PAHELI MARU	DR TRUPTI PATEL, DR SNEHA KAKOTY
4	61	ROLE OF FNAC IN DIAGNOSING MALIGNANT LIVER TUMORS	PAHELI MARU	DR TRUPTI PATEL, DR JOCELYN SARA PAUL
5	72	HISTOPATHOLOGICAL STUDY OF SPECTRUM OF THYROIDECTOMY SPECIMENS IN A TERTIARY CARE INSTITUTE	PALLAVI MAHAJAN	DR. MOHIT GOEL, DR. MAHIMA SHARMA, DR. ARVIND KHAJURIA
6	112	A CLINICOPATHOLOGICAL STUDY ON ESOPHAGEAL SQUAMOUS CELL CARCINOMA IN SOUTHERN ASSAM WITH SPECIAL REFERENCE TO CYCLIN-D1	PAYEL HAZARI	DR. MONOJ KUMAR DEKA, DR.ARINDAM DAS, DR. S.A.SHEIKH

7	79	IMMUNOHISTOCHEMICAL EXPRESSION OF PHOSPHATASE AND TENSIN HOMOLOG IN RELATION TO MOLECULAR CLASSIFICATION OF CARCINOMA BREAST	POOJA RATHEE	DR SANJAY MARWAH, DR SUNITA SINGH
8	128	MYOEPITHELIOMA OF THE VOCAL FOLD – A CASE REPORT	POORVA GURJAR	
9	71	STUDY OF EXPRESSION OF ER/PR IN VARIOUS HISTOMORPHOLOGICAL PATTERNS OF AUB IN ENDOMETRIAL BIOPSIES	PRASHANT TRIVEDI	DR. MANOJ SHARMA, DR SONIA AGARWAL, DR PURUSHOTTAM MADERNA, DR SHWETA BANSAL, DR. HRISHIKESH SHARMA, DR. HINAL PUROHIT
10	81	INTRAOPERATIVE CYTOLOGY OF OVARIAN MASSES	RAJSHREE CHOUHAN	DR. GEETA PACHORI
11	37	USE OF THE INTERNATIONAL SYSTEM FOR REPORTING SEROUS FLUID CYTOPATHOLOGY (TIS) AND COMPARATIVE ANALYSIS OF THE CELL BLOCK TECHNIQUE VIS-A- VIS CYTOLOGICAL SMEAR EXAMINATION IN THE EFFUSIONS: AN OBESRVATIONAL INSTITUTIONAL STUDY	RASHI GUPTA	DR PRIYANKA KIYAWAT, DR ASHOK PANCHONIA
12	31	EXPRESSION OF P63 IN BREAST LESIONS	RESHMA NAMBIYAR	MEENA HARSH, ANSHIKA ARORA
13	41	INCIDENCE OF DYSPLASIA IN INFLAMMATORY BOWEL DISEASE	RITU AGRAWAL	SARANDEEP SINGH PURI, ASHISH KUMAR MANDAL, JYOTI MISHRA
14	33	HISTOMORPHOLOGICAL ANALYSIS OF BREAST LESIONS	RUHI	-
15	9	SPECTRUM OF HEMATOLOGICAL DISEASES IN KASHMIRI POPULATION: A 5-YEAR HOSPITAL BASED STUDY	SALMA GULL	DR FAHIM MANZOOR, NUSRAT BASHIR, SHAREEFA AKHTER, SHEIKH BILAL
16	29	ASSESSMENT OF BILIRUBIN LEVELS IN THE NEWBORN BABIES OF ALLOIMMUNIZED MOTHERS-A TERTIARY CARE CENTRE STUDY	SAMAN USMANI	DR. ASIM ISRAR KHAN, DR. SUHAIL UR RAHMAN, DR. S.H ARIF, DR. KAFIL AKHTAR, DR. IMAM BANO.

17	49	PROFILE OF NON-HEMATOLOGICAL PEDIATRIC TUMORS: A CLINICOPATHOLOGICAL STUDY	SANYA BHASIN	DR. NADIA SHIRAZI, DR. MEENA HARSH, DR. KUNAL DAS
18	77	CORRELATION OF CLINICAL LABORATORY PARAMETERS OF COVID-19 PATIENTS WITH RADIOLOGICAL FINDINGS	SARAH IRFAN	MOHAMMAD IMRAN, ZEESHAN NAHID, ANKITA PARASHAR, ZOHRA SIDDIQUI
19	30	DIRECT CORRELATION OF BIOMARKER INTERLEUKIN-6 AND RISK OF SEVERE DISEASE AND MORTALITY IN COVID-19 PATIENTS	SATYAM CHAURASIA	DR. O. P. BHARGAVA
20	18	HISTOPATHOLOGICAL STUDY OF SOFT TISSUE TUMORS AND ITS IMMUNOHISTOLOGICAL MARKERS	SHALINI GUPTA	
21	137	INTRACRANIAL MYOPERICYTOMA: A RARE BENIGN TUMOR AT AN EXTREMELY RARE LOCATION	PRACHI	DR. HEMA MALINI AIYER, DR. ASHISH SHRIVASTAV

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Judges: **Dr Praveen Sharma, Dr Pulkit Rastogi**

S.No	Abs ID	Abstract Title	Presenter Name	Co-Authors Name
1	68	MOLECULAR STUDY OF BREAST CARCINOMA CASES BY IMMUNOHISTOCHEMISTRY AND ITS CORRELATION WITH HISTOPATHOLOGICAL GRADING.	SHIVANI SWARNKAR	DR. MALA PATIDAR
2	121	SIGNIFICANCE OF HEMATOLOGICAL SCORING SYSTEM IN NEONATAL SEPTICEMIA	SHUBHAM MISHRA	
3	20	STUDY OF EVALUATION OF LEVEL OF SERUMZINC AND COPPER IN PATIENTS WITH TRAUMATIC BRAIN INJURY	SHYAMSUNDAR YADAV	DR. SUSHMA BJ, DR. SANJEEV ATTRY
4	80	HISTOPATHOLOGY OF MUCORMYCOSIS IN COVID-19 IN-PATIENTS AT TERTIARY CARE HOSPITAL	SIDDHARTH DAHIYA	DR. GEETA PACHORI
5	98	IMPACT OF COVID-19 INFECTION ON HEMATOLOGICAL PARAMETERS AND BIOCHEMICAL MARKERS	SIDDHARTH DAHIYA	DR. GEETA PACHORI
6	88	ASSESSMENT OF CD56 POSITIVE NATURAL KILLER CELLS IN ENLARGED LYMPH NODES OF BREAST CANCER PATIENTS- A PILOT STUDY	SIMRAN SHARMA	RICHA GUPTA

7	83	SPECTRUM OF RARE VARIANTS OF MENINGIOMA	SNEHA	ANITA A M
8	129	ROLLER IMPRINT SMEAR WITH ULTRAFAST PAPANICOLAOU STAINING: AN INNOVATIVE TECHNIQUE FOR RAPID ON-SITE EVALUATION OF ENDOMETRIAL PATHOLOGIES.	SONAM SHARMA	
9	96	FLOW CYTOMETRIC ANALYSIS OF PLATELET-LEUKOCYTE AGGREGATES AND HEMATOLOGICAL PARAMETERS IN PRE AND POST PLATELETPHERESIS DONORS.	SUBARNA SHARMA PINKY	DR ANJALI SHARMA, DR MUKUL SINGH, DR SUNIL RANGA
10	38	CORRELATION OF IMPRINT CYTOLOGY AND HISTOPATHOLOGY OF OROPHARYNGEAL AND ESOPHAGEAL LESIONS.	SUMIT KUMAR YADAV	DR MALA PATIDAR
11	15	RADIOLOGICAL AND BIOCHEMICAL CORRELATION OF D-DIMER VALUE IN COVID-19 PATIENTS	SUNITA KUMARI	DR.CHETNA JAIN (PROFESSOR)
12	6	CLINICO-PATHOLOGICAL SPECTRUM OF AUTOIMMUNE BULLOUS DISEASE AND ROLE OF DIF IN THE DIAGNOSIS	SUSHANT SAHU	ROOBINA KHAN, VEENA MAHESHWARI
13	11	EVALUATION OF LIFE STYLE FACTORS, BODY MASS INDEX AND BIOIMPEDENCE BODY FAT ANALYSIS IN ADOLESCENTS	SUSHMA BJ	DR. OMESH KHURANA1, DR. MITHILESH DEWANGAN*, MR. VIRAJ
14	70	CLINICOPATHOLOGICAL PROFILE OF PATIENTS DIAGNOSED WITH MULTIPLE MYELOMA IN A TERTIARY CARE HOSPITAL.	SWATI RATHORE	DR. ANITHA SEERVI, DR. MANJU RAGHAVA
15	50	VARIOUS HISTOLOGICAL PATTERNS OF OVARIAN NEOPLASMS IN RURAL SETUP, CENTRAL INDIA	TANVI SHARMA	DR. AKSHAY SURANA
16	87	HISTOPATHOLOGICAL SPECTRUM OF ENDOSCOPIC GASTROINTESTINAL BIOPSIES : A STUDY IN TERTIARY CARE CENTER OF WESTERN INDIA .	TRIZA SHIROLE	
17	89	GASTROINTESTINAL STROMAL TUMOR OR GASTRIC SCHWANNOMA : A DIAGNOSTIC DILEMMA .	TRIZA SHIROLE	

18	105	LARYNGEAL AND RETROPHARYNGEAL SCHWANNOMAS: RARE CASE REPORTS	TRIZA SHIROLE	
19	36	CLINICOHEMATOGICAL CORRELATION OF RETICULOCYTE MATURATION PARAMETERS IN DIFFERENTIAL DIAGNOSIS OF MACROCYTIC ANEMIA.	VANDANA PAHADIYA	DR. A. PANCHONIA, DR. RADHIKA RAI, DR. M. MITTAL
20	119	MORPHOLOGICAL SPECTRUM OF ENDOMETRIAL PATHOLOGY IN MIDDLE-AGED WOMEN WITH ATYPICAL UTERINE BLEEDING	ZEESHAN IQBAL	SUJATA JETLEY, SAFIA RANA, ZEEBA SHAMIM JAIRAJPURI
21	91	CLINICAL PROFILE OF PRESUMPTIVE LYMPH NODE TUBERCULOSIS IN CHILDREN AND CORRELATION OF FINE NEEDLE ASPIRATION SMEAR, CB-NAAT AND CULTURE	ZOHRA NAHEED HASHMI	SWARNA SINGH, KAFIL AKHTAR, FARZANA K. BEIG
22	90	A COMPARATIVE STUDY OF TRANSFUSION TRANSMITTED INFECTIONS AMONG VOLUNTARY BLOOD DONORS AND REPLACEMENT DONORS	ZOHRA SIDDIQUI	DR. SADIA AFREEN, DR. SARAH IRFAN, DR. SUHAILUR REHMAN, DR. S.H ARIF

Poster Presentations | Screen -1

Judges: **Dr Priya Pathak, Dr Rakshtha Nayak**

S.No	Abs ID	Abstract Title	Presenter Name	Co-Authors Name
1	48	ADULT TESTICULAR NON HODGKIN'S LYMPHOMA: CASE SERIES	SIMRAN AILANI	MANJU RAGHAVA, NEHA SETHI, MANEESH K VIJAY
2	24	PREVALENCE AND TRENDS OF TRANSFUSION TRANSMITTED INFECTIONS AMONG BLOOD DONORS IN BLOOD BANK IN JHALAWAR MEDICAL COLLEGE, JHALAWAR.	AMIT SHARMA	DR. SUMIT PRAKASH RATHORE
3	5	PREVALENCE AND PREDICTORS OF VASOVAGAL ADVERSE REACTIONS AMONGST WHOLE BLOOD DONORS AT REGIONAL BLOOD TRANSFUSION CENTRE: A 4 YEARS EXPERIENCE	ANJU KHAIRWA	ANJU KHAIRWA1, MD; 1 PRIYANKA GOGOI, MD; PREETI DEWAKER1, RAJENDRA SING NEGI1TECHNOLOGIST.
4	45	A CASE REPORT ON FIBROUS DYSPLASIA OF MAXILLA	ANKUR KATEWA	ANKIT JOSHI
5	104	ANGIONEUROFIBROMA- NEW HISTOLOGICAL SUBTYPE OF NEUROFIBROMA	ANNAPOORNE-SHWARI R	DR. DAYANANDA S BILIGI
6	78	METAPLASTIC CARCINOMA- A RARE ENTITY	ANUJA BHARGAVA	DR. AKSHAY SURANA
7	54	PERFORATED MECKEL'S DIVERTICULUM WITH ASSOCIATED INTESTINAL TUBERCULOSIS - A RARE CASE REPORT.	ARYAPRABHA S.S	DR. G.K PARVATHI DEVI
8	100	MALIGNANT MELANOMA OF THE NASAL CAVITY: A RARE CASE REPORT.	ATUL MOHANRAO PAWAR	DR. RAJENDRA CHAUDHARI, DR. JYOTI SONAWANE, DR. PREETI BAJAJ
9	44	PLEXIFORM FIBROHISTIOCYTIC TUMOR OF ELBOW: A RARE CASE REPORT	AVADH VIHARI LAL SHARMA	SUSHANT SAHU, VEENA MAHESHWARI, MURAD AHMAD, ZEESHAN NAHID
10	42	NON HEPATOSPLENIC EXTAMEDULLARY HEMATOPOIESIS IN CERVICAL LYMPH NODE IN AN ADULT FEMALE: A RARE PRESENTATION OF PRIMARY MYELOFIBROSIS	BHARTI SAKLANI	DR. MANSI KALA, DR. AVRITI BAVEJA

11	92	ACUTE MEGAKARYOCYTIC LEUKEMIA: A REPORT OF TWO CASES	BHARTI SAKLANI	MANSI KALA, KUNAL DAS, AVRITI BAVEJA
12	27	A HISTOPATHOLOGICAL STUDY OF ECCRINE POROMA	DEBANJAN DUTTA	DR. RICHA SHARMA (PROFESSOR), DR. CHETNA JAIN(PRO-FESSOR)
13	28	IDIOPATHIC THROMBOCYTOPENIC PURPURA – A CLINICOHEMATOLOGICAL CORRELATION.	DEEPAK KUMAR DEWANDA	DR. SUMIT PRAKASH RATHORE (HOD AND PROFESSOR), DR. YOGENDRA MADAN (ASSI. PROFESSOR)
14	35	HISTOPATHOLOGICAL AND CLINICAL COMPARISON OF HAILEY HAILEY DISEASE AND DARIER DISEASE.	MANISH SHUKLA	RISHI DIWAN , RICHA SHARMA , BRAJENDRA SHAKYAWAL.
15	53	RARE SPINDLE CELL LESIONS OF PAROTID GLAND: SOLVING THE DILEMMA	MEDHA MANI GUPTA	DR. BUSHRA SIDDIQUI, DR. VEENA MAHESHWARI, DR. WASIF M. ALI, DR. PRADYUMN SINGH
16	106	A CASE OF EXTRAMEDULLARY HEMATOPOIESIS IN MULTINODULAR GOITRE WITH FOCAL PAPILLARY MICROCARCINOMA	MINU CHANDRAN	REEBA MARY RAJAN
17	25	CYTO-HISTOPATHOLOGICAL CORRELATION IN DIAGNOSIS OF CAROTID BODY PARAGANGLIOMA	NEETU YADAV	RISHI DIWAN
18	107	HEMATOLOGICAL PROFILE OF ACUTE FEBRILE ILLNESS	NITIN CHANDWANI	DR. ANOOP NIGAM
19	23	MYOPERICYTOMA: A RARE BENIGN TUMOUR; CASE SERIES OF THREE CASES	NUPUR KAUSHIK	DR. SHIKHA PRAKASH, DR. GARIMA DUNDY, DR. JUHI SINGHAL
20	130	A RARE CASE OF UTERINE LIPOMA	NUPUR VERMA	
21	114	A CASE OF CONJUNCTIVAL MALIGNANT MELANOMA IN AN 85-YEAR-OLD NON-CAUCASIAN LADY: A RARE ENTITY	PAYEL HAZARI	DR. MOMOTA NAIDING, DR. MONOJ KUMAR DEKA, DR.SUMITA DUTTA GUPTA, DR. SHAH ALAM SHEIKH
22	138	LARGE MUCINOUS CYSTIC NEOPLASM OF MESOCOLON IN ASSOCIATION WITH DUODENAL ADENOCARCINOMA IN AN ELDERLY MALE: A DIAGNOSTIC CHALLENGE AND A RARE INCIDENTAL ENTITY	PRACHI	DR. HEMA MALINI AIYER DR. ASHISH SHRIVASTAV

Poster Presentations | Screen -2

Judges: **Dr Bindu Kumari, Dr Sonam Sharma**

S.No	Abs ID	Abstract Title	Presenter Name	Co-Authors Name
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ORAL PRESENTATIONS

Abstract ID: 102

A ONE YEAR RETROSPECTIVE STUDY OF HISTOPATHOLOGICAL LESIONS OF HEAD AND NECK

Presenting Author: **AKANKSHA AWASTHI**
Co – Authors: **DR. YOGITA SINGH TOMAR**

Aim-Background: To determine histopathological subtypes, frequency of head & neck lesion, age, gender distribution and site & organ wise distribution

Material-Methods: A one year retrospective study was designed to study of various biopsies from head and neck region, sent for HPE at department of pathology, R.D.Gardi medical college ujjain,M.P. from 1st july 2020 to 31st june 2021

Results: Total 186 cases from the head and neck region were analyzed .Age range was 4 years to 89 years. With maximum cases were in the age group of 11-30 years (60.2%).M:F ratio was 1.16:1. In our study, 55.9% benign, 33.3% inflammatory,6.5% malignant lesion. Squamous cell carcinoma was the most common malignant lesion Conclusion: We conclude that site specific data like this is helpful in evaluating patterns of head and neck lesions and augment the baseline data of institute and region.

Keywords: Head and neck lesion, benign, inflammatory and malignant lesion

Abstract ID: 34

VCS PARAMETERS OF NEUTROPHILS AND MONOCYTES IN EARLY IDENTIFICATION OF ADULT SEPSIS

Presenting Author: **AKANKSHA RAJ KHANDAL**
Co – Authors: **MANSI KALA, DRISHTI PARGAI**
Affiliation: **DEPARTMENT OF PATHOLOGY, HIMALAYAN INSTITUE OF MEDICAL SCIENCES**

Aim-Background:
1) to study the hematological parameters in sepsis in adult patient.
2)To compare haematological parameter including volume conductivity scatter of Neutrophils and Monocytes in sepsis

Material-Methods: All cases of this study were carried out in department of Pathology, Himalayan Institute of Medical Sciences,Dehradun over a period of one year. This study included the patients who were admitted with diagnosis of sepsis(suspected and documented infection with >/=2 SOFA criterion) and Healthy control. Beckman Coulter DXH 800 Analyzer was used for processing blood counts and VCS parameters. All the data was compiled in excel sheet and statistically analyzed using IBM SPSS Software version. The study was approved by the institutional research and ethics committee vide letter no. ECR/483/Inst/UK/2013/RR-16,Dt.23.8.2017

Results: In this study total of 257 patients were enrolled. Sepsis screen and blood culture were sent for all the subjects. We found that VCS parameters of various leucocytes, median angle light scatter of neutrophil, the mean monocyte lower angle light scatter and mean monocyte volume which were higher in sepsis along with significantly higher mean neutrophilic volume

Conclusion: In this study we analyzed the various routine and additional hematological parameters in cases of sepsis and compared them with healthy controls. So the study suggest that additional parameters along with routine parameters could be helpful as screening tools in sepsis.
Keywords: : sepsis,vcs parameters,neutrophil and monocyte

Abstract ID: 69

EVALUATION OF PLATELET INDICES AND IMMATURE PLATELETS FRACTION IN A NEWLY DIAGNOSED THROMBOCYTOPENIC PATIENT AT TERTIARY CARE HEALTH CENTRE

Presenting Author: **AMIT KUMAR MAHARIA**
Co – Authors: **ANJANA MITTAL, SHWETA BANSAL, ARPITA MATHUR**
Affiliation: **FIRST YEAR JUNIOR RESIDENT, DEPARTMENT OF PATHOLOGY, MAHATMA GANDHI MEDICAL COLLEGE AND HOSPITAL, JAIPUR, RAJASTHAN**

Aim-Background: To evaluate platelet indices- Platelet count, MPV, PDW, PCT , P-LCR, IPF in newly diagnosed thrombocytopenic patients.

Material-Methods: This cross sectional study was conducted in Pathology department, Mahatma Gandhi medical college and hospital and included newly diagnosed thrombocytopenic patients whose EDTA blood samples were collected, then CBCs and IPF were analyzed on Sysmex XN-1000 device.

Results: Out of 117 newly diagnosed thrombocytopenic patients, 60% are male and 40% are female. Maximum (20.51%) patients are of age group 40-50years. Maximum patients are diagnosed with malignancies (n=17) and viral infections (Negative for dengue) (n=17), followed by ITP (n=15). Dengue (n=11), CKD (n=10), megaloblastic anemia (n=8), scrub typhus (n=4) and aplastic anemia (n=4) are also included. Platelet count is maximum in patients of scrub typhus (mean 65.5), followed by malignancies and infections. IPF is maximum in patients of ITP (mean 12.09), followed by malignancies, dengue and other infections. MPV is maximum in dengue patients (mean 27.15), followed by CKD and megaloblastic anemia.

Conclusion: IPF as a marker for platelet production had the highest levels among ITP patients. It could be used as a rapid and inexpensive automated marker for etiology of thrombocytopenia and can be integrated as a standard parameter to evaluate the thrombopoietic state of the bone marrow. Elevated IPF% among patients with an active ITP, while being nearly normal in remission could provide a utility for monitoring the response to therapy.

Keywords: Immature platelet fraction, Thrombocytopenia

Abstract ID: 39

STUDY OF HISTOPATHOLOGICAL LESION OF ENDOMETRIAL BIOPSY IN WOMEN PRESENTING WITH ABNORMAL UTERINE BLEEDING: A RETROSPECTIVE STUDY

Presenting Author: **ANANYA BAJPAI**
Co – Authors: **DR. YOGITA SINGH TOMAR**

Aim-Background: To study the endometrial lesion in all age group presenting with AUB.

Material-Methods: A retrospective study was designed to study of various D& C and endometrial biopsies sent for histopathological examination at department of pathology, R.D.Gardi medical college, Ujjain, M.P. from 1st January 2022 to 30th June 2022. The study is based on the histopathological evaluation of endometrial biopsies received during the 6 month of study period.

Results: Total 87 specimen of endometrial biopsies were collected in 6 month of study period, of which 5 cases excluded from study due to inadequate sampling and 82 cases were analyzed. We found that all age group was presented with AUB but women with age group 36-50 years were more common. 53.7% cases were the organic cause and in which endometrial hyperplasia was most common. 46.3% cases were the functional causes in which proliferative phase was most common. 2 cases of endometrial carcinoma found.

Conclusion: Histopathological evaluation of endometrial samples can be used as first step for diagnosis of abnormal uterine bleeding.

Keywords: Abnormal uterine bleeding, endometrial biopsy

Abstract ID: 93

CORRELATION OF PROGRAMMED DEATH LIGAND-1(PDL-1) EXPRESSION AND PHOSPHATASE AND TENSIN HOMOLOG(PTEN) ALTERATION AS DIAGNOSTIC MARKERS IN COLORECTAL CARCINOMA

Presenting Author: **ANJALI AHALAWAT**
Co – Authors: **DR. SANJAY KUMAR, DR. SANT PRAKASH KATARIA,DR. SUNITA SINGH**
Affiliation: **POST GRADUATE STUDENT**

Aim-Background: To correlate expression of PDL-1 and PTEN with grading of colorectal carcinoma.

Material-Methods: This is a retrospective study comprising of total 75 cases over a period of one year, i.e. 1 May 2021 to 30 april 2022 diagnosed in the Department of Pathology, PGIMS, Rohtak. Colorectal carcinoma specimen were included in the study. The specimens were processed by routine histotechniques and PDL-1 and PTEN immunohistochemistry applied.

Results: Out of 75 cases, maximum cases were of histologic grade 2 (76%) followed by grade 1 and grade 3 (12% each).PDL-1 expression was seen in 20.0% of the cases, with strong positive staining in 6.67% of total cases. PTEN loss was seen in 32% cases, while 68% cases retained PTEN expression Statistically significant association of PTEN loss and positive PDL-1 expression was seen.

Conclusion: The present study highlights the expression of PDL-1 and PTEN with different clinicopathological parameters of colorectal carcinoma and their correlation with each other. Since the development and progression of tumor from microscopic level to distant metastasis is a lengthy process and passes through various treatable phases, early detection is crucial to reduce the mortality of disease.

Recently PDL-1 raised scientific interest as the first clinical studies with PDL-1 inhibitors promised encouraging results in several tumor types.

Keywords: CRC, PDL-1,PTEN

Abstract ID: 82

HISTOPATHOLOGICAL SPECTRUM OF NODULO-CYSTIC LESION OF SCALP - CHALLANGE TO THE CLINICAL DIAGNOSIS.

Presenting Author: **ANJALI DUBEY**
Co – Authors: **DR. S. SADAF SIDDIQUI**

Aim-Background: The clinical differentiation of scalp lesion is challenging and commonly misdiagnosed as cyst or lipoma. However, these lesions had a different diagnostic interpretation on histopathology examination. Therefore our study focused on the lesions clinically diagnosed as nodulo-cystic lesion in the scalp region.

Material-Methods: Sixteen cases of scalp lesions with a clinical diagnosis of cyst or lipoma over one year (September 2021-september 2022) were retrieved and reviewed from pathology department, tertiary care hospital Mahaveer institute of medical sciences and research. Bhopal. Details of the patients such as clinical diagnosis, age, gender, duration, clinical pictures, gross findings , and histopathology diagnosis were obtained from the medical and histopathology records

Results: Sixteen cases of histopathologically proven diverse cases of scalp swelling were included. Epidermoid cysts diagnosed both clinically and on histopathology examination accounted for 43.7 %,(07/16), Lipoma 12.3% (02/16), However other cases are diagnosed as Eccrine adenoma 6.2 % (01/16), Neurofibroma 6.2% (01/16), Angiofibroma 6.2% (01/16), Fibroma 6.2% (01/16), Atypical lymphoid hyperplasia 6.2% (01/16), Folliculitis keloidalis nuchae 6.2% (01/16), Verrucous hyperplasia 6.2% (01/16). 43.7 % cases were misdiagnosed clinically and require further surgery to clear margin and change treatment therapy.

Conclusion: Clinicians should be aware of cystic and lipomatous lesion in the scalp region as the management and outcome vary with each lesion. Histopathology examination proved to be a diagnostic tool in differentiating these lesions.

Keywords: Scalp, Epidermoid cyst, Lipoma, Neurofibroma, Eccrine adenoma.

Abstract ID: 4

A SPECTRUM OF KIDNEY DISEASES IN CHILDREN AT A TERTIARY CARE CENTRE IN INDIA

Presenting Author: **ANJU KHAIRWA**
Co – Authors: **ANJU KHAIRWA1,2; MD, ARUNA VISHWANATH VANIKAR2; MD, KAMAL VIMAL KANODIA2; MD, RASHMI DALSUKHBHAI PATEL2; MD, LOVELESH KUMAR NIGAM2; MD, DINESH GERA3; MD.**
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Aim-Background: The aim of the study was to present a spectrum of kidney diseases in children from India.

Primary Objective: To assess the clinic-histological pattern of paediatric renal disease Secondary Objective To assess the Prevalence and mortality rate in children due to kidney disease

Material-Methods: We retrospectively reviewed data of all children from newborn to 12 years of age with renal disease admitted over a five-year period.

Results: We received 391 specimens of kidney disease from pediatric patients from 2011 to 2015. We estimated the 24.8% prevalence of kidney diseases in pediatric admissions over the study period. The male-to-female ratio of 1.6:1. The age-involved children was 7.03± 3.35 years. A spectrum of kidney diseases included acute nephritic/nephrotic syndrome (acute glomerulonephritis) (20.7%), nephrotic syndrome (17.3%), urinary tract infections (16.1%), chronic kidney disease (13.0%), renal tumour (12.0%), acute kidney injury (11.7%), congenital anomalies of the kidneys and urinary tract (8.4%) and others (0.5%). The mortality rate was 1.4%. Mortality rates from 2011 to 2015 varied from 2.1% to 1.0%. The mean ± SD age of children at the time of death was 5.56±4.38 years.

Conclusion: The pediatric age group has a good burden of kidney diseases, even in developing countries. Kidney diseases are an important cause of childhood morbidity and mortality. We advocate effective referral systems, training of pediatric nephrologists, pathologists, and improved healthcare facilities to decrease morbidity and mortality from kidney diseases in children.

Keywords: Spectrum, Kidney, Disease, Prevalence, Morbidity

Abstract ID: 12

HISTOPATHOLOGICAL STUDY OF FIBRO-EPITHELIAL LESIONS OF BREAST AT TERTIARY CARE CENTER

Presenting Author: **ANKIT JOSHI**
Co – Authors: **DR RICHA SHARMA (PROFESSOR), DR PRITI SHARMA (MD PATHOLOGY)**
Affiliation: **JHALAWAR MEDICAL COLLEGE, JHALAWAR**

Aim-Background:
To study histopathological spectrum of fibro-epithelial lesions of breast.
To study distribution of fibro-epithelial lesions in different age groups.
To analyse incidence of fibro-epithelial lesions in total breast specimen.

Material-Methods: This study will be prospective study. This study will be carried out in department of pathology, jhalawar medical college, jhalawar

Source of data- Material that will be included- All excision biopsy/lumpectomy/ mastectomy/ true cut biopsy specimen of respective cases received in histopathology department of Jhalawar medical college, jhalawar during this period.

Inclusion criteria - All female patients with breast mass/lump undergoing excision biopsy lumpectomy or mastectomy.

Sample size- Sample received during the study period of six months.
Results: In total 72 specimens of biopsies there was 46 cases were fibro-epithelial lesions which are of 63.8%.

There were 38 cases of fibroadenoma(82%), 4 cases of phyllodes tumors(8.6%), 3 cases of mammary hamartoma (6.5%), and 1 case of tubular adenoma (2.17%) were diagnosed.
Age incidences were maximum in 20-40 years (58.69%) and (41.30%) in 10-20 years.

Conclusion: Fibro-epithelial lesions are the most common lesions of breast seen consisting of fibroadenomas and phyllodes tumors.Mammary fibro-epithelial tumors are biphasic neoplasms that exhibit proliferation epithelial and stromal (mesenchymal) components. We concludes that fibro-epithelial lesions were mostly found as fibroadenoma. The most common age group is 20-40 years of age.

Keywords: Fibroadenoma, phyllodes tumors, mammary hamartoma, tubular adenoma

Abstract ID: 46

STUDY OF MORPHOLOGICAL SPECTRUM OF PROSTATIC LESIONS

Presenting Author: **ANKUR KATEWA**
Co – Authors: **DR RISHI DIWAN**
Affiliation: **JHALAWAR MEDICAL COLLEGE, JHALAWAR**

Aim-Background: To study histopathological spectrum of prostate specimen received in the department of Pathology, Jhalawar medical college and hospital. To assign Gleasons grade,score and class to the malignant tumors.

Material-Methods: Total 100 cases of prostatic specimen received in department of pathology, Jhalawar medical college,Jhalawar were studied.

Results: Total 100 cases with age ranged from 35 to 90 years were studied. 89 (89%)cases were non-neoplastic and 11(11%)neoplastic. BPH is the most common lesion.Out of total cases BPH is the most common lesion. Out of total benign cases 75(84.26%)cases of BPH, 14 cases(15.73%) were of BPH with Prostatitis. We reported 11 cases of adenocarcinoma prostate with application of modified Gleason grading system.

Conclusion: It is concluded that prostatic lesions are common in age group of 60-80 years. Benign conditions are more common than malignant conditions Among the histological types of prostatic lesions, benign prostatic hyperplasia (BPH) is most common lesion observed followed by benign prostatic hyperplasia (BPH) with prostatitis.It is important to apply modified Gleason's system in case of adenocarcinoma of prostate to improve management.

Keywords: Gleasons system, Benign prostatic hyperplasia(BPH), Prostate Carcinoma

Abstract ID: 75

TO STUDY HISTOMORPHOLOGICAL SPECTRUM OF THYROID LESIONS IN RURAL SETUP, CENTRAL INDIA

Presenting Author: **ANUJA BHARGAVA**
Co – Authors: DR. AKSHAY SURANA

Aim-Background: To study spectrum of thyroid malignancies among all cases of thyroid neoplasms.

Material-Methods: This is a prospective study of 40 thyroid lesions at RD GARDI MEDICAL COLLEGE, UJJAIN, MADHYA PRADESH during a period of 1 year (September 2021- September 2022). Both neoplastic and non- neoplastic thyroid lesions were included and classified according to WHO classification 2017

Results: Out of 40 cases studied, most were benign (80%), followed by malignant lesions (20%). Age ranged from 20-70 years. Nodular goiter were most common (42.5%), followed by Thyroiditis

(22.5%) and Malignant lesions (22.5%) and then Adenoma (12.5%). Overall, Papillary carcinoma was most common among malignancies(12.5%), followed by follicular malignancies(7.5%) and the least common was Medullary carcinoma(2.5%).

Conclusion: Colloid goiter and papillary carcinoma was the most encountered non- neoplastic and neoplastic lesion with a female predominance. Rare tumors like medullary carcinoma and follicular carcinoma with anaplastic transformation were also encountered.

Keywords: Thyroid, neoplasms, benign, malignant, papillary, colloid

Abstract ID: 120

DIAGNOSTIC CHALLENGES OF TUBERCULAR LESIONS OF BREAST

Presenting Author: **ARUSHI GUPTA**
Co – Authors: **ZEEBA S. JAIRAJPURI, SAFIA RANA, SHAAN KHETRAPAL, SUJATA JETLEY, SABINA KHAN**
Affiliation: **JAMIA HAMDARD**

Aim-Background: India is a developing country where tuberculosis (TB) is endemic with both pulmonary and extrapulmonary manifestations of the disease. Tuberculosis of breast is extremely rare even in developing countries where pulmonary and other forms of extrapulmonary manifestations of TB are endemic. Rarity of breast TB with an incidence of <0.1% of all breast lesions in western countries and 3-4% of cases in endemic countries like India and Africa. Its importance lies in the fact that it may mimic malignancy or present as inflammatory lump/abscess. So, our aim was to highlight the importance of breast TB and its diagnostic challenges.

Material-Methods: The study was conducted in HIMSR and associated HAHC Hospital, New Delhi. A total of 312 cases of extrapulmonary TB during the study period out of which eight cases were of breast TB. Fine needle aspiration cytology (FNAC) of the lump was done and smears examined. All relevant data were recorded. Cytomorphological features for the diagnosis included epithelioid cell granulomas, presence of epithelioid cells, suppuration, and necrosis. ZN Staining was done for acid–fast bacilli to confirm the presence of bacilli.

Results: Granulomas were seen in five cases while three cases revealed only few epithelioid cells, and necrosis was seen in all cases on fine needle aspiration cytology. Histopathological evaluation was available in six out of the eight cases, while acid–fast bacilli were positive in three cases, the characteristic granulomas seen in all six cases evaluated.

Conclusion: Significance of TB breast lies in the fact that it may masquerade as breast malignancy or pyogenic abscess. In endemic countries like India, clinical history, cytomorphological features of epithelioid cell granulomas with or without necrosis, and AFB negative FNAC smears a therapeutic trial of antitubercular drugs. We hope to generate awareness among physicians in evaluating breast masses and TB to be included in their differential diagnosis.

Keywords: Abscess, breast lump, cytology, malignancy, tuberculosis

Abstract ID: 7

A STUDY OF COAGULATION PROFILE IN LIVER DISEASE PATIENTS IN A TERTIARY CARE HOSPITAL

Presenting Author: **ASHISH KULHARI**
Co – Authors:
Affiliation: **DEPARTMENT OF PATHOLOGY, PG RESIDENT JHALAWAR MEDICAL COLLEGE, RAJASTHAN**

Aim-Background: The objective of this study was to evaluate coagulation abnormalities associated with liver diseases using tests like prothrombin time (PT), activated partial thromboplastin time (APTT) and platelet count.

Material-Methods: The study was conducted in the central laboratory of pathology department jhalawar medical college, during the period from may 2021 to January 2022. This study include 135 patients clinically diagnosed with liver disease who were divided into four categories 1. Chronic liver disease 2. Viral hepatitis 3. Alcoholic liver disease 4. Other liver disease. The coagulation tests PT, APTT and platelet count were performed and the result were evaluated in groups.

Results: Out of 135 patients, 56 were diagnosed with chronic liver disease, 52 were of viral hepatitis, 21 were of alcoholic liver disease and 6 were of other liver disease. About 72% (97/135) had prolonged PT. About 38% (51/135) had prolonged APTT. Thrombocytopenia was seen in 45% (61/135) patients.

Conclusion: We concluded that various abnormalities of coagulation tests vary greatly with different liver disorders, duration of disorders and their severity. Prolongation of prothrombin time (PT) and activated partial thromboplastin time (APTT) in advancing liver disease indicates damage to the liver parenchyma resulting decrease production of coagulation proteins with increased risk of bleeding tendencies, Which can be detected before the ensue.

Keywords: PT ,APTT, Liver disease.

Abstract ID: 8

SPECTRUM OF LESION IN LYMPH NODES- A CYTOLOGICAL RETROSPECTIVE ANALYSIS

Presenting Author: **ASHISH KULHARI**
Co – Authors:
Affiliation: **POSTGRADUATE RESIDENT 3RD YEAR JHALAWAR MEDICAL COLLEGE, RAJASTHAN**

Aim-Background: Fine Needle Aspiration Cytology (FNAC) is simple, rapid, cost effective and reliable technique which can be used as a routine outpatient department (OPD) procedure and first line of investigation in diagnosing a variety of superficial and deep lesions (USG or CT Guided). Lymphadenopathy is of great clinical significance and the underlying cause may range from infectious etiology to malignant neoplasms. In this study, we describe the diagnostic utility of FNAC in the diagnosis of lymph node lesions with an emphasis on the diagnosis of non-neoplastic, benign and malignant neoplastic lymp node lesions.

Material-Methods: This was a retrospective study and a total of 376 patients including all age groups and both sexes presenting with palpable or deep lymph nodes in FNAC clinic of our institute over a period of 1 year were included in our study. FNAC was conducted with 22-24 Gauge disposable needles attached to 20c.c syringes. Smears were fixed in 95% ethyl alcohol and stained with Papanicolaou stain. Leishman stain was done on air dried smears. ZiehlNeelsen (ZN) staining was done wherever required.

Results: Out of 376 aspirations from lymph nodes, the most frequent cause of lymphadenopathy was found to be Tuberculosis with 152 cases (40.42%). The next frequent diagnosis was reactive lymphadenitis with 129 cases (34.30%) followed by malignant lymphadenopathy in 53 cases (14.09%). A diagnosis of suppurative lymphadenopathy in 39 cases (10.37%). In 03 cases (0.79%) diagnosis was Rosai-Dorfman disease.

Conclusion: In our study, the predominant cause of lymphadenopathy was tuberculous lymphadenitis, followed by reactive lymphadenopathy and malignant neoplasms. FNAC of lymph nodes is an excellent first line investigation to determine the nature of lesion.
Keywords: FNAC, Lymphadenopathy, Tuberculous lymphadenitis.

Abstract ID: 62

EXPRESSION OF P53 IN OVARIAN TUMORS

Presenting Author: **ASHITA JAIN**
Co – Authors: **DUSHYANT SINGH GAUR, ANURADHA KUSUM**
Affiliation: **HIMALAYAN INSTITUTE OF MEDICAL SCIENCES, SRHU**

Aim-Background: To study the expression of p53 in ovarian tumors

Material-Methods: This observational, cross-sectional study was carried out in the department of Pathology, Himalayan Institute of Medical Sciences, Jollygrant, over a period of one year. All cases of ovarian tumors diagnosed on histopathological examination according to WHO criteria of classification were taken, excluding those which had received chemotherapy and/or radiotherapy. Immunohistochemical analysis for p53 was performed and graded. All data was compiled and statistically analysed using SPSS software. The study was approved by the institutional research and ethics committee vide letter no. ECR/483/Inst/UK/2013/RR-16,Dt.23.8.2017.

Results: The study included 56 cases of ovarian tumors where mean age of presentation was 47.61 years. Majority of the cases presented with abdominal complaints like pain abdomen (73.21%) followed by abdominal distention (21.43%). On histopathology half of the cases were benign and half of the cases were malignant. Most of the cases were that of Surface epithelial tumors (76.7%) followed by Germ cell tumors (14.3%) and Sex cord stromal tumors (9%). Expression was p53 was positive only in malignant surface epithelial tumors, highest in serous carcinomas (76.92%) followed by mucinous carcinomas (57.14%). p53 expression was not seen in benign surface epithelial tumors as well as germ cell and sex cord stromal tumors.

Conclusion: Ovarian neoplasms are more commonly seen in peri-menopausal and post menopausal women, usually presenting with abdominal complaints. In this study, p53 expression was only seen in malignant surface epithelial tumors, it's expression higher in serous as ompared to mucinous carcinomas. It is suggested that further larger studies may be done to determine the usefulness of p53 immunoexpression as a diagnostic modality.

Keywords: p53, ovarian tumors, immunohistochemistry, epithelial tumors

Abstract ID: 84

SEROPREVALENCE OF HCV AMONG DIALYSIS PATIENTS ATTENDING DISTRICT HOSPITAL KHAMMAM

Presenting Author: **ASHOK REDDY KKAKUMANU**
Co – Authors: **DR. ANITHA.C (ASSOCIATE PROFESSOR - MICROBIOLOGY, MAHER), DR. L. SANDEEP KUMAR, (VIROLOGY LAB INCHARGE - DH- KHAMMAM), DR. P. CHANDRA LEKHA (SENIOR RESIDENT -MICROBIOLOGY, DH- KHAMMAM).**
Affiliation: **RESEARCH SCHOLAR (MEDICAL MICROBIOLOGY), MEENAKSHI ACADEMY OF HIGHER EDUCATION AND RESEARCH.**

Aim-Background:
1. To know the prevalence of HCV among Dialysis patients in the study region.
2. To compare the results between Rapid and Elisa.

Material-Methods:
Study Design: It is a prospective analytical study.
Study period: January to July 2022.
Inclusion Criteria: A patient who underwent > 20 Dialysis cycles.

Exclusion Criteria:
A patient who underwent < 20 Dialysis cycles.
Patients who are not willing to give Consent.
Subjects who met the Inclusion criteria were counseled and enrolled in the study after obtaining informed consent.
Blood was collected from the peripheral vein under strict aseptic conditions.
Samples screened for HCV by both Rapid Diagnostic Kit (Immuno Chromatographic method) and ELISA (J Mitra 4th Gen Antigen & Antibody-based ELISA).

Results: Out Of 165 high-risk cases involved in the study, 106 were Males 59 were Females. On screening by rapid test & Elisa 18 Males and 7 Females detected positive with ELISA, whereas with rapid test 4 showed false negative results.

Conclusion: The prevalence of HCV has been increasing in Dialysis patients, alarming strict infection control practices in Dialysis units and proper screening techniques. Rapid test though helpful in emergency situations should be followed by Elisa & false negatives to be reported to avoid silent transmission of infection.

Keywords: Hepatitis C, HCV, Dialysis, ELISA, Khammam, India

Abstract ID: 118

CORRELATION OF SERUM CA-125 WITH CLINICOPATHOGICAL FINDINGS IN OVARIAN TUMOURS.

Presenting Author: **ASHWANI KUMAR**
Co – Authors: **DR SANJEEV NARANG, DR PARUL MAHESHWARI, DR PAWAN BHAMBANI**
Affiliation: **INDEX MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTER, INDORE, M. P**

Aim-Background:
1. To study incidence of different ovarian tumours.
2. To study age distribution among ovarian tumours.
3. To correlate findings of serum CA-125 with histopathology.

Material-Methods: The present retrospective and prospective study was conducted over a period of one and half year. The study was carried out after obtaining clearance from the institutional ethics committee. Total 58 cases were obtained over a period of one and half year which met the inclusion and exclusion criteria. Comprehensive clinical, pathological, radiological imaging and histological examinations were used to make the diagnosis of ovarian tumours.

Results: In the present study, age range of patients with ovarian tumour was seen more commonly in 4th to 5th decade of life. In present study, majority were epithelial tumours (74.1%), followed by germ cell tumours (12.1%), sex cord/stromal tumours (6.9%) and non-neoplastic lesions (6.9%). There was significant correlation found between malignant potential and CA-125 status. Out of 35 women with CA-125 score of ≥35 IU /ml, 26 had malignant lesions on histopathology. The sensitivity of CA-125 in predicting malignant lesions as compared to histopathology was 74.20% with 85.70% specificity.

Conclusion: According to the study's findings, CA-125, the most thoroughly researched molecule, appears to be the most promising biomarker for predicting the likelihood that a patient would develop ovarian cancer.

Keywords: CA-125, tumours, ovarian tumours.

Abstract ID: 14

A STUDY OF HISTOPATHOLOGIC SPECTRUM OF LEPROSY WITH SPECIAL REFERENCE TO ELDERLY POPULATION: A STUDY AT A TERTIARY CARE CENTRE IN NORTHERN INDIA.

Presenting Author: **ATIYA FIRDOUS SIDDIQUI**
Co – Authors: **DR.APARAJITA,DR.DURRE SHEHWAR,DR.BUSHRA SIDDIQUI,DR.S.H FARIDI,DR. MASTAKIM A.M.**
Affiliation: **KARNATAKA MEDICAL COUNCIL**

Aim-Background: To study the histopathological spectrum of leprosy at a tertiary care centre in western UP, with special reference to elderly population.

Material-Methods: A retrospective study was conducted in the Department of Pathology of a tertiary care centre from January 2016 to December 2020. 306 skin biopsies from patients clinically diagnosed as leprosy were included.

Results: A total of 306 cases were studied. Highest incidence was in the age group between 20-30yrs. Male preponderance with male: female ratio of 2.5:1 was noted. The commonest reported histopathological type was indeterminate 77(25%) followed by borderline tuberculoid 57 (18%).

Conclusion: Leprosy is a disease of public health importance as it has socio economic and physical debility. Due to its wide clinical presentations the histopathology remains a key to early diagnosis and prevention of disabilities.In the present study we found that the most common subtype was indeterminate followed by borderline tuberculoid with a male predominance and the most commom age group affected was 20-30 years which again implies its impact over the economy of the society.This information is valuable making public health decisions while implementing plans for leprosy elimination in the country.

Keywords: Leprosy, histopathology, skin biopsy, early diagnosis.

Abstract ID: 97

A CLINICOPATHOLOGICAL STUDY OF 100 CASES OF SALIVARY GLAND LESIONS

Presenting Author: **ATUL MOHANRAO PAWAR**
Co – Authors: **DR. RAJENDRA CHAUDHARI, DR. PREETI BAJAJ**
Affiliation: **DR. VASANTRAO PAWAR MEDICAL COLLEGE & HOSPITAL, ADGAON, NASHIK, MAHARASHTRA**

Aim-Background:
1)To study the epidemiology of salivary gland lesions in our region with respect to the age, sex, site, distribution and clinical presentation.
2) To study the histomorphological aspect of these lesions.
3) To correlate between fine needle aspiration cytology and histopathology.

Material-Methods: The present observational study was conducted in the department of Pathology in Dr. VPMCH & RC, Nashik. Total 100 cases were studied over a period of two years with particular reference to age, sex, site, cytological details & histological types as per WHO classification. Detailed FNAC & histopathological examination was done in all cases. Correlation between the cytological & histopathological diagnosis was assessed.

Results: A total of 100 cases were studied in 62 males & 38 female patients within the age range of 10-75 years. Of the total 100 cases, non neoplastic cases constituted 46, 38 were benign neoplasms and 16 were malignant. The parotid gland was the most commonly involved site (70% of cases).Of the 46 non neoplastic cases 38 were of chronic sialadenitis and 8 cases of mucous retention cyst. Among the 38 benign neoplastic lesions, 32 were Pleomorphic adenoma and 6 were Warthin's tumor. Mucoepidermoid carcinoma (8 cases) was the most common malignant neoplastic lesion. Cytological and histological findings correlated in 94% of cases.

Conclusion: Salivary gland lesions, are most commonly seen in 2nd to 6th decade of life with more male predominance. Parotid is the most common site involved. Non neoplastic lesions have more frequent occurrences compared to benign or malignant lesions, with chronic sialadenitis having highest incidence. Histopathologic examination is fairly accurate in making a diagnosis especially in non neoplastic and benign neoplasms.

Keywords: Salivary gland, parotid gland, pleomorphic adenoma, mucoepidermoid carcinoma

Abstract ID: 116

A STUDY ON HISTOPATHOLOGICAL SPECTRUM OF LESION IN URINARY BLADDER BIOPSIES

Presenting Author: **BABEETA SAINI**
Co – Authors: **DR. KUSUM HEDA**
Affiliation: **POST GRADUATE RESIDENT PATHOLOGY**

Aim-Background: The present study aimed to study the histopathology of various lesion of the bladder through cystoscopic biopsies and transurethral resection of bladder tissue.

Material-Methods: this is a study conducted in department of pathology JLN MEDICAL COLLEGE, ajmer (RAJASTHAN), over a period of one year.

Results: out of total 35 cases, 31 cases(91.42%) were male and most commonly affected age group is 60-70year. 28 cases(80%) were neoplastic and 7 cases(20%) were non neoplastic. Among the neoplastic lesions 13 cases (46.42%) were of papillary urothelial neoplasm low grade

Conclusion: histopathological study of urinary bladder biopsies help in early diagnosis and management of tumour

Keywords: urothelial lesion, bladder, low grade

Abstract ID: 117

UTILITY OF RED CELL DISTRIBUTION WIDTH IN MICROCYTIC HYPOCHROMIC ANAEMIA

Presenting Author: **BABEETA SAINI**
Co – Authors: **DR. KUSUM HEDA**
Affiliation: **POST GRADUATE RESIDENT PATHOLOGY**

Aim-Background: The study was done to assess the role of RDW as an early indicator in diagnosis of microcytic hypochromic anemia.

Material-Methods: we conduct a prospective study in jawaharlal nehru medical college and attached group of hospital, ajmer rajasthan and sample collection is 40 over a period of four month

Results: In comparison between iron deficiency anaemia and non iron deficiency anaemia RDW was found to be more in iron deficiency anaemia as compared to non iron deficiency anaemia . There is majority of the cases were severe anaemia

Conclusion: RDW has a high sensitivity and can be used as a simple, economical, reliable automated red blood cell parameter for initial diagnosis of microcytic hypochromic anemia.

Keywords: RDW, anaemia

Abstract ID: 135

Prevelance of High grade glioma grade III and IV

Presenting Author: **DR. SURABHI MISHRA**
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Objectives: To study the prevelance of High Grade glioma grade III and IV.

Introduction: WHO grade III glioma lesion either presents de novo and behaves like a primary glioblastoma or evolve from a well differentiated precursor lesion of Grade-I/Grade-II. Glioblastoma (WHO Grade-IV) simply represents the most aggressive of the infiltrating astrocytic tumours. Two variants are recognised Primary (WHO-IDH wild type) and Secondary (WHO-IDH mutant).Primary lesion occurring de-novo i.e. unassociated with any precursor lesion, the secondary type resulting from expansion of aggressive clones generated within preexcisting Grade I/II astrocytoma..

Material-Methods: This is a retrospective study done in Department of Pathology, G.R.M.C., Gwalior(M.P.).The study span is 5 years from January 2018 to December 2022.

Results: In our study total 934 cases were evaluated out of which 214 cases are high grade glioma and 720 cases was of low grade glioma. In high grade glioma (214 cases) 98 cases (45.7%) are grade III and 116 cases (54.3%) are grade IV. Male preponderance is present with 85% male and 15% female patients. Majority of cases are seen within 50-59 years (26.7%).

Conclusion: Glioma is the most common tumour of central nervous system with mean age of 50-59 years and male preponderance.

Keywords: High grade glioma, Glioblastoma.

Abstract ID: 19

A STUDY ON CYTOPATHOLOGICAL & CLINICOPATHOLOGICAL PROFILE OF LYMPHADENOPATHY IN PEDIATRIC AGE GROUP- A COMPREHENSIVE EVALUATION OF VARIOUS CAUSES OF LYMPHADENOPATHY IN 70 CASES AT M.G.M.MEDICAL COLLEGE AND M.Y.HOSPITAL INDORE

Presenting Author: **BHADAURIYA RAJLAXMI S**
Co-Authors: **PROF. DR. MEENA MITTAL, PROF. DR. ASHOK PANCHONIA, DR POOJA PRAPANNA.**
Affiliation: **PG RESIDENT MAHATMA GANDHI MEMORIAL MEDICAL COLLEGE UNDER MPMSU JABALPUR**

Aim-Background: Objective-To establish the role of FNAC as an important diagnostic tool for conclusive diagnosis In cases of pediatric lymphadenopathy. A complete clinicopathological spectrum of the cases included in the study will be correlated with cytopathological observations to establish the final diagnosis.

Material-Methods: This study has been conducted on 70 pediatric patients (0-14 years of age) with lymphadenopathy attending routine and sonographic guided FNAC centre at the Mahatma Gandhi Memorial Medical College and M.Y. Hospital, Indore from (Nov 2020 to Nov 2021) in each cases relevant personal and clinical data was recorded and complete clinical examination was done.

Results: In our study, 28(40%) cases were diagnosed as Tubercular lymphadenitis, 32(45.7%) cases were diagnosed as Nonspecific reactive hyperplasia, 04(5.70%) cases were diagnosed as acute suppurative lymphadenitis,03(4.28%) cases were diagnosed as hodgkin's lymphoma,02(2.85%) cases were kikuchi disease and 01(1.42%%) cases were diagnosed as metastatic carcinoma on the basis of clinical and cytological diagnosis.

Conclusion: Our study established a significant correlation between clinical and cytological diagnosis along with help of other relevant investigation. Although the series is small to reach at a statistical conclusion, the presented data draws attention to the problem of tuberculosis in our country.

Keywords: Key word Tubercular lymphadenitis, Nonspecific reactive hyperplasia, acute suppurative lymphadenitis, hodgkin's lymphoma, kikuchi disease and metastatic carcinoma.

Abstract ID: 22

MEGAKARYOCYTIC ALTERATIONS IN THROMBOCYTOPENIA- A BONE MARROW ASPIRATION STUDY.

Presenting Author: **BIJI ANITTA JOHN**
Co – Authors: **DR PANKAJ SHINDE, DR POONAM NANWANI, PROF DR ASHOK PANCHONIA, DR JITHA SHAJU**
Affiliation: **POST GRADUATE RESIDENT, MGM MEDICAL COLLEGE INDORE, UNDER JABALPUR UNIVERSITY MADYA PRADESH**

Aim-Background: To demonstrate the utility of bone marrow examination , study of the various megakaryocytic alterations, both dysplastic and non dysplastic forms and its contribution to final diagnosis.

Material-Methods: The present two year study was done in the department of hematology, Mahatma Gandhi memorial medical college Indore, Madhya Pradesh. All subjects who presented with persistent thrombocytopenia for whom bone marrow aspiration was done were included in the study. Amongst all the subjects hemogram, peripheral smear, reticulocyte counts was obtained. Bone marrow aspiration smears were stained with Leishman stain and megakaryocytic alterations were assessed using light microscopy. All data thus obtained was tabulated and analyzed using S.P.S.S software.

Results: The present study was performed amongst 148 subjects. The most common cause of thrombocytopenia for which bone marrow examination were done was Megaloblastic Anemia followed by Acute Leukemia and Immune thrmbocytopenic purpura. Both dysplastic and non dysplastic forms were observed in these conditions. The most common non dysplastic feature observed in megaloblastic anemia was hypolobation and immature forms.

Conclusion: Understanding of the various morphological changes in megakaryocytes can improve the diagnostic accuracy for a wide range of hematological disorders and hence proper therapeutic interventions can be made.

Keywords: Megakaryocytic alterations, Dysplasia, Thrombocytopenia, Immune thrombocytopenic purpura, Acute Leukemia, Myelodysplastic syndrome

Abstract ID: 73

COVID ASSOCIATED GUT GANGRENE SERIES OF 20 CASES – A STUDY AT TERTIARY CARE CENTRE

Presenting Author: **DEEPIKA DARJI**
Co – Authors: **DR. CHETNA MEHROL, DR. MANJU RAGHAVA, DR. SONY MANDAL DR. SONAM ARYA, DR. MANUSHEE PATHAK**
Affiliation: **PG RESIDENT**

Aim-Background: To study the Histomorphological features in bowel gangrene associated with COVID -19 infection.

Material-Methods: All Cases of resected small bowel specimen during April 2020 to may 2021 associated with COVID-19 infection were taken. Formalin fixed, paraffin embedded section, cut in to 4micron thick sections and stained with haematoxylin and eosin.

Results: Histopathology revealed denudation of the mucosal surface epithelium with loss of crypts. Lamina propria appeared edematous along with regenerating immature crypts. The vessels showed mixed inflammatory infiltrate and gangrenous necrosis.

Conclusion: Bowel gangrene should be kept as differential while treating COVID-19 patients with GI symptoms. CT abdomen can help make a rapid diagnosis of bowel ischemia, allow early treatment, and reduce mortality in these critically ill patients.

Keywords: COVID 19,Gangrene, Ischaemia.

Abstract ID: 10

UTILITY OF ENDOSCOPIC ULTRASOUND GUIDED FNAC(EUS-FNAC) IN THE DIAGNOSIS OF PANCREATIC TUMORS

Presenting Author: **DIBYENDU MAJUMDER**
Co – Authors: **DR R S PATIL,DR MAHADEO MANE**
Affiliation: **POST GRADUATE STUDENT-PATHOLOGY**

Aim-Background: Endoscopic ultrasound-guided fine-needle aspiration (EUS-FNAC) is an important diagnostic tool for the workup of pancreatic tumors. It is a minimally invasive procedure and provides excellent cell yield even in deep seated lesions. The preoperative diagnosis of pancreatic tumors by this EUS-FNAC can help the surgeons in categorizing the tumor for various treatment modules based on the subtypes of pancreatic tumor. In this study a total of 10 patients who on imaging studies revealed pancreatic mass underwent EUS-FNAC for a preoperative diagnosis.

Material-Methods: A total of 10 cases were taken in this study who underwent EUS guided FNAC for suspected pancreatic tumors. EUS-FNAC was performed by using a curvilinear array echoendoscope (Pentax EG-3870UTK, Pentax Medical, Hamburg, Germany) attached to a Hitachi EUB 8500 ultrasound processor (Hitachi Medical Systems, Wiesbaden, Germany). The procedure was performed by experienced endoscopist and the smears on glass slides were prepared from aspirated fluid with corpuscular fractions. Additionally, cellular clots were gently rolled over glass slides to allow for a detachment of cells on the slide surface. The slides were finally air dried and taken up for cytopathological examination.

Results: Out of 10 cases,6 cases were suggestive of Solid Pseudopapillary tumor of pancreas,3 cases of pancreatic Ductal Adenocarcinoma and 1 case of Neuroendocrine tumor of pancreas. This was confirmed later on further Immunocytochemical stains.

Conclusion: Solid Pseudopapillary tumor of Pancreas is a rare neoplasm of pancreas which is generally seen in females. In our study out of the 10 cases, surprisingly this tumor is a majority compared to ductal adenocarcinoma of pancreas and thus EUS-FNAC being a minimally invasive procedure can help in early diagnosis and can improve the patient outcome.

Keywords: EUS-FNAC, Solid Pseudopapillary neoplasm, Duct Adenocarcinoma Pancreas.

Abstract ID: 51

SPECTRUM OF TUMORS AND TUMOR LIKE LESIONS OF BONE:AN OBSERVATIONAL STUDY

Presenting Author: **HARSH KUMARI**
Co – Authors: **DR MONIKA GUPTA, DR NISHA MARWAH, DR SUNITA SINGH**
Affiliation: **DEPARTMENT OF PATHOLOGY,PGIMS ROHTAK**

Aim-Background: The aim of the present study was to determine:
The spectrum and demographic characteristics of bone tumors and tumor like lesions at a tertiary care centre. Bone tumors are rare disease constituting 0.5% of total cancer incidence globally. They are classified on the basis of cell type and recognized products of proliferating cells. Bone tumors may be primary which originate in the bone or secondary. Bone lesions often pose diagnostic challenges to surgical pathologists. Therefore, an integrated approach involving radiographic, histologic, and clinical data are necessary to form an accurate diagnosis and to determine the degree of activity and malignancy of each lesion. A proper histopathological diagnosis is useful in confirming the diagnosis and helps in staging the tumor and aid the surgeon in planning limb salvage surgery for early malignant and benign bone lesions.

Material-Methods: Study was conducted between April 2022 to October 2022. A total of 28 cases of bone tumors and tumor like lesions were included in the study. All the cases were subjected to detailed history, physical examination, radiological investigations and histopathological examination.

Results: Of 28 cases studied, median age was 22 years. There were 17(60.71%) males and 11(39.2%) females with Male:Female ratio of 1.5:1 . On histopathological examination, commonest tumour

observed were benign 17 (60.7%) while 11 (39.2%) were malignant. Fibrous dysplasia was the commonest tumor like lesion. Amongst tumors, Osteochondroma is most common benign bone tumor while Osteogenic osteosarcoma was commonest primary malignant bone tumor in our study. On studying the age distribution, maximum number of cases belonged to second decade.

Conclusion: The pattern and distribution of bone tumors and tumor like lesions seen at our centre are similar to previous studies. Males were more commonly affected than females with a peak in second decade. An integrated approach involving radiographic, histologic, and clinical data are necessary to form an accurate diagnosis and to determine the degree of activity and malignancy of each lesion.

Keywords: Bone tumors , Osteogenic Sarcoma, Fibrous dysplasia

Abstract ID: 43

NECROTIZING LYMPHADENITIS A CLINICOPATHOLOGIC SPECTRUM- A STUDY AT TERTIARY CARE CENTER

Presenting Author: **HRISHIKESH SHARMA**
Co – Authors: **DR. CHETNA MEHROL, DR. ANJANA MITTAL, DR. MANJU RAGHAVA, DR. PRASHANT TRIVEDI**
Affiliation: **MAHATMA GANDHI MEDICAL COLLEGE AND HOSPITAL, JAIPUR**

Aim-Background:
1) To study the morphological features in lymph nodes in cases of necrotizing lymphadenitis,
2) To correlate them with specific etiological condition.

Material-Methods: Cases of necrotizing lymphadenitis (Pathologic diagnosis, irrespective of etiology) from January to September 2022, diagnosed on excisional biopsies of lymph nodes. These excisional lymph node biopsy tissues were formalin-fixed, paraffin-embedded, cut into 4-µm thick sections and stained with haematoxylin and eosin. Representative sections were also stained with histochemical stains like Periodic acid Schiff's and reticulin stain.

Results: Histomorphological features were studied which shows presence of vascular proliferation, periadenitis, infiltration with foamy macrophages, neutrophils and plasma cells.

Conclusion: Necrosis in the lymph node does not equate to caseation or TB. In addition, we suggest that a careful assessment of specific features like the presence of plasma cells and vascular proliferation can suggest the diagnosis. Other morphologic features should also be looked into, as it might be helpful in identifying significant findings in the lymph node biopsies which can clinch the etiological diagnosis. A study including more number of cases in each entity might identify diagnostically significant pathologic features.

Keywords: Necrotizing, necrosis, lymph nodes

Abstract ID: 103

UTILITY OF FINE NEEDLE ASPIRATION CYTOLOGY IN MEDIASTINAL MASSES: A SINGLE INSTITUTIONAL RETROSPECTIVE STUDY

Presenting Author: **JEENA THOMAS**
Co – Authors: **DR. BRIJ MOHAN KUMAR SINGH, DR. VARUN KUMAR**
Affiliation: **POST GRADUATE STUDENT, KMC MANIPAL**

Aim-Background: To analyze the mediastinal masses diagnosed on FNAC and compare them with radiological and clinicopathological findings.

Material-Methods: We retrospectively studied eighteen cases, which underwent FNAC under Ultrasound and/or CT (computed tomography) guidance for mediastinal masses, from the year 2014-2022. Histopathological correlations were done in cases wherever available

Results: Among 18 cases which were evaluated through FNAC, the male-to-female ratio was 1.25:1 with an age range of 8 to 73 years. Out of 18 cases, FNAC was helpful in 8 cases and inconclusive in the rest of the 10 cases due to various reasons including lack of tissue, and procedural hemorrhage. Out of 8 cases, 5 were malignant and in the other 3 cases 2 were benign lesions and 1 was a granulomatous lesion. Biopsy correlations were available in 13 cases. In the malignant category, mediastinal metastasis by adenocarcinoma and poorly differentiated carcinoma constituted the highest number and 2 were germ cell tumours of which one was diagnosed by FNAC and later confirmed on biopsy. In non-neoplastic conditions, non-specific inflammation was the most common cause. In biopsies done for inadequately sampled cases, there were cases of thymoma, lymphoma, and squamous cell carcinoma. Both FNAC and biopsy were available in 4 malignant cases of which all were correlating. Radiological correlations with biopsy were possible in 5 cases of which 3 were correlating with biopsyand discordant cases including one case suspicious for malignancy turned out to be teratoma anda soft tissue lesion on radiology suggested histopathological correlation, on cytology, confirmed malignancy and later by biopsy diagnosed as a poorly differentiated tumor.

Conclusion: USG/CT guided FNAC is a safe,minimally invasive, cost-effective procedure. With adequate sampling can provide a precise diagnosis in mediastinal masses and helps in obviating the need for further surgical approach.

Keywords: Mediastinal, Mass, FNAC, Mediastinum

Abstract ID: 3

EFFICACY OF SERUM TRANSFERRIN RECEPTOR, SERUM FERRITIN AND SERUM TRANSFERRIN RECEPTOR: FERRITIN INDICES IN DIAGNOSING AND DIFFERENTIATING PATIENTS OF ANEMIA OF CHRONIC DISEASE AND ANEMIA OF CHRONIC DISEASE WITH COEXISTENT IRON DEFICIENCY ANEMIA.

Presenting Author: **JITHA SHAJU**
Co – Authors: **DR POOJA PRAPANNA,DR VEENA KUMARI BAIS,PROF DR MEENA MITTAL,PROF DR ASHOK PANCHONIA,DR BIJI ANITTA JOHN**
Affiliation: **POST GRADUATE IN MAHATMA GANDHI MEMORIAL MEDICAL COLLEGE, INDORE UNDER JABALPUR UNIVERSITY**

Aim-Background: To assess the utility of serum transferrin receptor, serum ferritin and serum transferrin receptor- log ferritin index to differentiate anemia of chronic disease from iron deficiency anemia and also to diagnose co existing iron deficiency anemia and anemia of chronic disease.

Material-Methods: An observational study was done in 40 blood sample of patients attending Mahatma Gandhi Memorial Medical College and M.Y. Hospital, Indore and study duration is of one year(ie. November 2020 to November 2021) after approval from ethics committee.

Results: In the study, 18 (45.0%) cases were diagnosed as anemia of chronic disease, 11 (27.5%) cases were diagnosed as iron deficiency anemia and 11 (27.5%%) cases were diagnosed as anemia of chronic disease with coexistent iron deficiency anemia on the basis sTfR, serum ferritin and sTfR-log ferritin index.

Conclusion: The study concluded the sTfR- log ferritin index help in diagnosing and differentiating anemia of chronic disease and anemia of chronic disease with coexistent iron deficiency anemia. The sTfR-log ferritin index also useful in confirming the diagnosis of Iron deficiency anemia and anemia of chronic disease.

Keywords: Anemia of chronic disease, Iron deficiency anemia, Anemia of chronic disease with coexistent iron deficiency anemia, sTfR, Serum ferritin and sTfR-log ferritin index .

Abstract ID: 55

CYTOMORPHOLOGICAL SPECTRUM OF BREAST LESIONS DIAGNOSED ON FNAC IN A TERTIARY CARE HOSPITAL, RAJKOT, GUJARAT

Presenting Author: **KINJAL KOTAK**
Co – Authors:
Affiliation: **STERLING HOSPITAL RAJKOT**

Aim-Background: Breast lump is the common presentation of breast disease. Fine Needle Aspiration Cytology (FNAC) is a simple, rapid and safe method to diagnose the breast lesions. The objective of this study is to determine the cytomorphological patterns of various lesions diagnosed on FNAC.

Material-Methods: The cases with breast FNACs were retrieved from the medical records of our lab over a period of two years. The clinical details, side, radiological findings and cytological diagnosis were studied along with histopathological follow-up wherever available.

Results: A total of 280 cases were retrieved. The age range of patients was from 16 to 70 years. 235 were females and 45 patients were males. Left side involvement of breast was more common than right side. FNAC was done without radiological guidance when the lesions were palpable and under ultrasound guidance when required. Cytological diagnosis included Benign Breast disease (180 cases), atypical probably benign (2 cases), suspicious for malignancy (10 cases) and malignant (88 cases). Fibroadenoma and invasive ductal carcinoma were most common amongst benign and malignant lesions respectively. Histopathological follow-up was available in 75 cases. Histopathology of 10 benign cases confirmed them to be benign and out of 88 cytologically malignant cases, 60 cases were confirmed as malignant on histology. Five cases with cytologically suspicious for malignancy were confirmed as malignant on histology.

Conclusion: Fine needle aspiration cytology is a rapid and effective method for primary categorization of breast lumps into benign, malignant, atypical, suspicious and unsatisfactory which makes it an important tool in guiding further management of a case. Thus FNAC should be used as a routine procedure to maximize the availability of effective healthcare to patients with breast lesions.

Keywords: Cytology, FNAC, Breast lesions

Abstract ID: 57

CYTOLOGICAL DIAGNOSIS OF MESOTHELIOMA WITH IMPORTANCE OF TWO STEP IHC MARKERS

Presenting Author: **KINJAL KOTAK**
Co – Authors:
Affiliation: **STERLING HOSPITAL RAJKOT**

Aim-Background: Distinguishing malignant mesothelioma, adenocarcinoma and reactive mesothelial proliferation in both cytological and surgical specimens is often a diagnostic challenge. The objective is to study clinical, cytomorphological and IHC features of cytologically diagnosed cases of malignant mesothelioma seen over a period of five years at our hospital.

Material-Methods: Cases diagnosed as mesothelioma were retrieved from the medical records of Cytopathology lab over a period of five years. The clinical details, site, imaging, cytomorphological and IHC features were retrieved along with histopathological follow up wherever available.

Results: A total of eleven cytologic specimens from ten patients comprising of three ascitic fluids, one pleural fluid and seven FNA specimens from pleural thickening (3 cases), peritoneal thickening(1 case), mediastinal lymph nodes (1case) right hilar mass (1case) and peribronchial mass (1 case) obtained by EBUS-TBNA, CT- guidance or under ultrasound guidance were available. Mean age at diagnosis was 63.5 years including eight males and two females. On imaging, patients had omental thickening and recurrent ascitis or pleural thickening and recurrent pleural effusions. On cytology, smears were cellular with groups, fragments, ball like formations and singly dispersed polygonal cells showing moderately pleomorphic nuclei and prominent nucleoli. IHC was done on cell blocks in two steps with first step showing positivity with calretinin and negativity with Berep4/CEA followed by second step showing positivity with WT-1, EMA, p53 and negativity with desmin. Histopathological follow up was available in four cases which confirmed the diagnosis of mesothelioma.

Conclusion: Malignant mesothelioma needs to be distinguished from reactive mesothelial cells and metastatic adenocarcinoma. Preparation of cell blocks followed by use of selected panel of IHC markers can aid in diagnosis on cytology.

Keywords: Mesothelioma, cytomorphology,IHC markers.

Abstract ID: 58

HISTOPLASMOSIS -AN UNCOMMON INFECTION DIAGNOSED ON FNA-A CASE SERIES FROM A TERTIARY CARE HOSPITAL RAJKOT, GUJARAT

Presenting Author: **KINJAL KOTAK**
Co – Authors:
Affiliation: **STERLING HOSPITAL RAJKOT**

Aim-Background: Histoplasmosis is an infectious disease caused by the dimorphic fungus Histoplasma capsulatum. It may present as chronic pulmonary infection or in disseminated form of infection. The disseminated form of infection may affect adrenals, liver, spleen, lymph nodes and bone marrow. This case series emphasizes the role of FNA in diagnosing them.

Material-Methods: We retrospectively analysed the data obtained by the search of medical records of cytopathology lab at our hospital over a period of two years. Cases diagnosed on EUS/EBUS/ USG guided FNA were included. The clinical details, imaging findings and cytomorphological features were studied (including special histochemical stains).

Results: A total of 9 cases were included with mean age being 45 years and all were males, with the commonest symptoms of fever. 7 cases were of adrenals and two were of subcarinal node and periportal nodes. Commonest imaging findings of adrenal cases were bulky adrenals. Clinical diagnosis of all cases was tuberculosis. All the cases showed necrosis and 4 cases also showed granulomas on smears. Narrow based budding yeast forms were seen in all cases- morphologically consistent with histoplasma which were confirmed with special stains (GMS).

Conclusion: FNA is an effective method in diagnosis of this unsual infection. Despite tuberculosis being endemic in India, it is necessary to have tissue diagnosis to exclude TB or diagnose tuberculosis before starting ATT empirically. FNA is an effective method for differential diagnosis of tuberculosis and histoplasmosis. This study documents one of the largest series of cases diagnosed as histoplasmosis on EUS/EBUS/USG FNA from India.

Keywords: Histoplasmosis, FNA diagnosis

Abstract ID: 124

A STUDY OF THE OUTCOME OF MAJOR DEPRESSIVE DISORDER BY EVALUATING THE LEVELS OF SERUM CALCIUM, MAGNESIUM, ZINC AND URIC ACID LEVELS IN POSTMENOPAUSAL WOMEN.

Presenting Author: **KOLLI SRUJAN KANTH**
Co – Authors: **DR. V. BHAVANI**
Affiliation: **DR. NTR UNIVERSITY OF HEALTH SCIENCES**

Aim-Background: To study the outcome of major depressive disorder in postmenopausal women by evaluating the levels of serum Calcium, Magnesium, Zinc and Uric acid, who are attending the psychiatry OPD, KGH, Visakhapatnam

Material-Methods: It is an Observational study. The sample size is 100 which includes 50 cases who are postmenopausal women with depression and without gout and 50 controls who are postmenopausal women without depression were included in this study period- April 2022 to September 2022. All the parameters were assessed in Toshiba autoanalyzer by the following methods:

a) Serum Calcium by Arsenazo III method
b) Serum Magnesium by Xylidyl blue method
c) Serum Uric acid by Uricase TOPS method
d) Serum Zinc by Nitro PAPS method

Results: The clinical parameters recorded during study period and its association to postmenopausal depression in both groups were analyzed. P value < 0.05 was considered statistically significant.

Conclusion: The prevalence of depressive symptoms is high in the postmenopausal women, which are associated with poorer overall functioning and a decreased quality of life . Supplementation of these microminerals might be helpful in preventing the depressive symptoms in postmenopausal women.

Keywords: Calcium, Magnesium, Zinc, Uric acid and Depression

Abstract ID: 32

HISTOPATHOLOGICAL SPECTRUM OF LESIONS OF APPENDIX- A 5-YEAR STUDY.

Presenting Author: **LAKSHMI PRIYA**
Co – Authors: **DR.REEBA, DR RINI, DR PRABHA, DR VIJI, DR ANU**
Affiliation: **DR SMCSI MEDICAL COLLEGE**

Aim-Background: To analyze various histopathological lesions of appendix and their demographics over a period of 5 years.

Material-Methods: Retrospective study included all the appendicectomy specimens received in department of Pathology from the year 2018 to 2022. Relevant demographic data, gross and histopathological findings were collected from Pathology records and computer databases. Data of the patients were assessed based on age, sex, histopathological diagnosis and uncommon findings in histology.

Results: Total of 301 appendicectomy cases from 2018 to 2022. Most common diagnosis was Acute appendicitis (59%). Peak age of incidence was between 10-30 years. Periappendicits was seen in 9.6% cases. Rate of perforation was 1.3%. Other findings like eosinophilic appendicitis and xanthogranulomatous appendicitis in 0.3% cases, Resolving appendicitis in 16% and obliterative in 3.3% of cases. Of the important co-existing pathologies, Parasites were seen in the lumen in 3 cases and Meckel's Diverticulum in 1 case (0.3%). Low grade appendiceal neoplasm was seen in 5 cases (1.7%) and adenocarcinoma of appendix in 1 case. Appendix showed no specific findings and lymphoid hyperplasia in 17.6% of cases.

Conclusion: Even though, unusual pathologies are rarely seen in appendix, routine histopathological examination of all appendix specimens are mandated to avoid missing clinically important conditions. Mucinous neoplasms especially need further follow up and evaluations.

Keywords: Acute appendicitis, Adenocarcinoma, Low grade appendiceal mucinous neoplasm.

Abstract ID: 109

CORRELATION BETWEEN SALIVARY AND SERUM CALCIUM AND ALKALINE PHOSPHATASE IN OSTEOPOROSIS PATIENTS

Presenting Author: **MAMTA SAGAR**
Co – Authors: **DR SHUSHMA BHOPALAM JAGANNATHA**
Affiliation: **DEMONSTRATOR, DEPARTMENT OF BIOCHEMISTRY**

Aim-Background: This study was conducted to see the changes in salivary and serum calcium and alkaline phosphatase in osteoporosis patients & also to correlate the change in serum levels with those in saliva.

Material-Methods: The study was conducted in the Department of Biochemistry, National Institute of Medical Sciences and Hospital, Jaipur. 100 adult osteoporosis patients confirmed by DEXA were taken from Department of orthopedics, National Institute of Medical Sciences and Hospital, Shobha Nagar, Jaipur, Rajasthan. Serum & salivary Calcium and serum & salivary Alkaline Phosphatase were analyzed in both groups. Statistical analysis was done by Student's paired t-test & Pearson's correlation coefficient was used to find correlation between serum analytes and salivary analytes. A p value < 0.05 was considered as significant.

Results: Serum calcium has strong positive correlation with salivary calcium ($r = 0.726$) while serum ALP and salivary ALP had weak positive correlation ($r = 0.453$).
Conclusion: Saliva can be used to measure calcium level instead of serum as it is non-invasive, quick and easy method.

Keywords: Calcium and alkaline phosphatase, Osteoporosis

Abstract ID: 13

STUDY ON MORPHOLOGICAL SPECTRUM OF SKIN BIOPSY IN PATIENT OF LEPROSY

Presenting Author: **MANISH KUMAR JAIN**
Co – Authors: **DR. RISHI DIWAN (PROFESSOR)**
Affiliation: **JHALAWAR MEDICAL COLLEGE**

Aim-Background: The objective is to study morphological spectrum of skin biopsies in leprosy patient

Material-Methods: The present study was undertaken to study morphological features of skin biopsy specimens from 45 clinically diagnosed case of leprosy in Dermatology opd in a tertiary care hospital , jhalawar , rajasthan over a period of from January 2021 to July 2022 months after obtaining approval of ethical committee of our institute. Materials for the study skin biopsies

were received in the department of Pathology obtained from subjects who attended the OPD in Dermatology Department and clinically diagnosed to have leprosy.
All the clinically diagnosed cases of leprosy were included in the study.Inadequate biopsies, inconclusive reports and poorly preserved biopsy were excluded from study.

Results: The present study include 45 cases. Out of 45 patient, 31 were males and 14 were female. Most of cases belongs to 31-40 year of age group.The most common site was determined to be back(37%), followed by the forearm (31%), the leg (13%). Other sites involved were the face, neck, trunk, foot and buttocks among others..In Histopathological study Lepromatous Leprosy was maximally diagnosed 37.7%. Acc to bacterial index classification, 33.3% were diagnosed 6+.

Conclusion: Although leprosy is thought to have been eliminated from India, it is still a problem in many places. Consequently, further research and investigation are still required in the effort to end the disease.

Keywords: leprosy, Mycobacterium leprae, bacillary index

Abstract ID: 47

DIFFERENTIAL DIAGNOSIS OF DYSERYTHROPOIESIS IN BONE MARROW ASPIRATION AT MY HOSPITAL INDORE

Presenting Author: **MANISHA AGARWAL**
Co – Authors: **DR. POONAM NANWANI**
Affiliation: **MGM. MEDICAL COLLEGE INDORE**

Aim-Background: The aim and objective of this study is to know the clinicoetiological profile,hematological analysis and various dyserythropoetic features in bone marrow evaluation of patients of various hematological conditions,admitted in a tertiary care teaching hospital.

Material-Methods: This is a retrospective,observational study,conducted in pathological department,M.Y Hospital,Indore,Madhya Pradesh from 2020 to 2022.The patients who were admitted with fever,anemia who underwent hematological analysis and bone marrow examination in our hospital were included in this study.Patients evaluated outside/treated in other hospitals were excluded from our study.

Results: Out of 525 cases between 2020-2022 60 cases exhibited features dyserythropoiesis. Most common presenting symptoms are fever,weakness and easy fatiguability.Most common signs were pallor,hepatomegaly and splenomegaly.Patients with MDS were elderly and had slight male preponderance,patients with ITP were middle aged females while in megaloblastic anemia females were more predisposed.Acute lymphoblastic leukemia (ALL) cases were children with no gender bias and AML and CML were elderly.Out of 60 cases,39 cases i.e. 65% cases showed erythroid hyperplasia and it includes megaloblastic anemia,myelodysplastic syndrome,idiopathic thrombocytopenic purpura,HIV and congenital dyserythropoietic anemia.28% cases i.e.17 cases out of 60 showed erythroid hypoplasia seen in ALL,CML and AML.Erythroid hypoplasia was observed in cases of red cell aplasia and aplastic anemia presenting with pancytopenia.

Conclusion: We can conclude that erythroid hyperplasia is the most common dyserythropoietic feature. Most common aetiology for dyserythropoesis is megaloblastic anaemia followed by myelodysplastic syndrome, few cases of leukemia such as AML, ALL and CML, pancytopenia?aplastic anemia, ITP and some rare entities such as red cell aplasia and HIV positive patient. Bone marrow examination can prevent the misdiagnosis for majority of cases of dyserythropoesis. Patients with MDS, Megaloblastic anemia, aplastic and HIV presents with pancytopenia and fever, in such cases bone marrow examination becomes crucial to reach a final diagnosis so that further treatment can be executed.

Keywords: Dyserythropoesis, myelodysplastic anemia, megaloblastic anemia, congenital dyserythropoietic anemia, pancytopenia.

Abstract ID: 64

THE COMPARISON OF HAEMATOLOGICAL INDICES IN CAD AND NON CAD PATIENTS

Presenting Author: **MANSI MEHROTRA**
Co – Authors: **DR D.S.GAUR, DR MANSI KALA, DR KUNAL GURURANI**
Affiliation: : **HIMALAYAN INSTITUTE OF MEDICAL SCIENCES, DEHRADUN**

Aim-Background: To compare the various hematological parameters in CAD and non-CAD patients

Material-Methods: All cases of this study were carried out in department of Pathology, Himalayan Institute of Medical Sciences, Dehradun over a period of one year. This study included the coronary artery disease patients and healthy control. Beckman Coulter DXH 800 Analyzer was used for processing blood counts. All the data was compiled in excel sheet and statistically analysed using IBM SPSS Software version. The study was approved by the institutional research and ethics committee vide letter no. ECR/483/Inst/UK/2013/RR-16,Dt.23.8.2017

Results: In this study total of 291 patients were enrolled. ECG and cardiac markers were sent for all the subjects. We found that the total leukocyte count, mean platelet volume, absolute neutrophil count, absolute lymphocyte count and the absolute monocyte count were higher in CAD group. Whereas the hemoglobin and the hematocrit were reduced in the diseased group

Conclusion: In this study we analyzed the various routine and additional hematological parameters in cases of CAD patients and compared them with healthy controls. With a high demand for a reliable, accessible, noninvasive prognostic marker, the study suggested that routine hematological indices have an additional predictive and prognostic role for the diagnosis of CAD

Keywords: Coronary artery disease, Hematological indices, prognostic and predictive role

Abstract ID: 2

HISTOPATHOLOGICAL STUDY OF GALL BLADDER LESIONS IN CHOLECYSTECTOMY SPECIMEN AT JHALAWAR MEDICAL COLLEGE - 3 YEAR RETRO AND PROSPECTIVE STUDY.

Presenting Author: **NEETU SINGH**
Co – Authors: **DR. SUMIT PRAKASH RATHORE (PROFESSOR),DR. SHARDA CHOUDHARY,(PG-3YR)**
Affiliation: **JHALAWAR MEDICAL COLLEGE, JHALAWAR, RAJASTHAN**

Aim-Background: 1. To categorize the gall bladder lesions in inflammatory, benign and malignant category.
2. To determine the distribution of various lesions.
3. To determine the age and sex distribution of the lesions.

Material-Methods: This is a retro and prospective 3 year study on 191 cholecystectomy specimen received in department of pathology Jhalawar medical college over a period of January 2019 to December 2021. Following steps will be done for histopathological examination of cholecystectomy specimen- tissue fixation, gross examination and sectioning. Hematoxylin and Eosin stains will be used for slide staining and afterwards observed under microscope.

Results: Cases were studied on the basis of age, sex, and their morphological appearance, gross and microscopic findings. Out of 191 cases the gall bladder diseases was found to be more in females in comparison with males (77.32% cases of females and 22.67% cases of males). Maximum number of cases were seen in 2nd to 5th decade of life, but highest no. of cases observed in 31-40years of age group. The frequency of different gallbladder diseases - cases of chronic cholecystitis with cholelithiasis were 86 (45.02 %) , whereas chronic cholecystitis without cholelithiasis was seen in 98 cases (51.30%) . The study showed that total 184 cases of chronic cholecystitis followed by 3 cases of adenocarcinoma of gallbladder, 2 cases of cholesterolosis,1 case of xanthogranulomatous cholecystitis and 1 case of adenosquamous type of gallbladder carcinoma.

Conclusion: Our study emphasizes that a routine cholecystectomy for common condition like gall stone diseases can result in a diverse wide spectrum of histopathological lesions ranging from benign diagnosis to unexpected gall bladder malignancy. Prompt detailed histopathological analysis will help to confirm the benign nature of the disease or to detect any precursor of malignancy.

Keywords: Cholecystectomy, gall stone, cholecystitis, malignancy

Abstract ID: 125

SPECTRUM OF INHERITED BLEEDING DISORDER WITH SPECIAL REFERENCE TO VON WILLEBRAND DISEASE IN EASTERN INDIA.

Presenting Author: **NEHAL AHMAD**
Co – Authors: **PROF. MOHD JASEEM HASSAN , PROF. SABINA KHAN, PROF. JYOTI SHUKLA**
Affiliation: **HAMDARD INSTITUTE OF MEDICAL SCIENCES**

Aim-Background: To study the prevalence, clinical spectrum and haematological profile of inherited bleeding disorder with special reference to von Willebrand disease in eastern India.

Material-Methods: The prospective study was done in a tertiary care centre in eastern part of India over a period of Two years. Detailed history and clinical findings were noted in a Proforma. Laboratory analysis included Prothrombin time, Activated partial thromboplastin time, bleeding time, and fibrinogen assay along with tests related to specific factor assay

Results: 105 patients were diagnosed as suffering with inherited bleeding disorder out of 1204 patients. The age of patients ranged from 13 days to 35 years. Most common presenting clinical feature was Prolonged bleeding after cut (76.19%). Out of 105 patients, 97(92.38%) were having coagulation defect & 3 (2.85%) were having platelet defect, 5(4.76%) were having vWD. Most common coagulation defect was Haemophilia A(86.59 %). Other rare congenital factor deficiencies were seen in 5 cases (5.15%). Only platelet defect was Glanzmann's thrombasthenia (100%). Age range in vWD patients was 4.5year to24year. 40% patients of vWD disease were Type 1 vWD, 40% were Type 2N and 20% were Type3 vWD

Conclusion: In conclusion we found that vWD was not so common in eastern India. vWD was present only in 4.76% cases. In our study most common coagulation defect was Haemophilia A (86.59%) followed by Haemophilia B (8.25%) followed by Factor XIII deficiency (2.06%). Factor X deficiency (1.03%), Factor I deficiency (1.03%), Factor VIII carrier (1.03%). Glanzmann's thrombasthenia was present in 2.85%.

Keywords: Bleeding, Glanzmann's thrombasthenia, Haemophilia, von Willebrand Disease

Abstract ID: 67

IMMUNOPATHOLOGY OF VARIOUS GRANULOMATOUS LESION

Presenting Author: **NITIN CHANDWANI**
Co – Authors: **DR. SURBHI KATHURIA**
Affiliation:

Aim-Background: Audit of granulomatous lesion received in
To study the histomorphological patterns of granuloma
To differentiate tuberculosisfrom leprosy granuloma on histopathology
To study and differentiate cell pattern and location by immunotyping in tuberculosis and lepsosy

Material-Methods: The present study –Immunopathology of various granulomatous lesion-A five year study at tertiary care hospital—is a prospective and retrospective study, conducted in department of pathology, RD Gardi Medical College, Ujjain, from January 2016 to December 2020 The cases were originated from patients with Granulomatous lesions seen on histopathology. Paraffin fixed blocks of the study specimens were selected and cut to prepare slides with two section on each slide which was stained with routine H&E stain

Results: The most common cause of granuloma was tuberculosis (56%) followed by leprosy(17.6%), idiopathic (14.5%), foreign body (8.4%), neoplastic (1.5%), fungal (1.5%), idiopathic causes included granulomatous mastitis, granulomatous prostatitis, granulomatous orchitis, granulomatous appendicitis, sarcoidosis, chron's disease, xanthogranulomatous pyelonephritis .Majority of the granulomas were seen in skin and subcutaneous tissue in 43
(32.8%), followed by involvement of lymph node in 28 (21.4%), Breast 14 (10.7%), GIT 13 (9.9), Respiratory system 11 (8.4%), Male genital tract 8 (6.1%), Bone 6 (4.6%), Female genital tract 4 (3.1%), Peritoneum 3(2.3%), Urinary system 1 (0.8%)

Conclusion: The present study aimed to explore the histomorphological characteristics of tuberculosis and non tuberculosis granuloma and study the Immunohistochemistry of CD markers on Tuberculosis and leprosy (BT, TT type) cases.

Keywords: granulomatous lesion, CD 4, CD 20, CD68

Abstract ID: 136

PREVALENCE OF CERVICAL CANCER AMONG CERVICAL BIOPSIES IN A TERTIARY CARE CENTRE

Presenting Author: **POOJA MANGAL**
Co – Authors: **Prof. SUDHA IYENGAR**
Affiliation: **JLN MEDICAL COLLEGE**

Introduction : According to WHO cervical cancer is 4th most common cancer in women. Cervical cancer is one of the leading cause of cancer death among women. Abnormal vaginal bleeding is the most common presenting symptoms in these patients uterine cervix is gateway to several non-neoplastic and neoplastic lesion.

Aims & Objectives:
(1) To study the histopathological features of various cervical lesions.
(2) To study the age distribution and relative frequency of various cervical lesion.

Material and Methods: This was a retrospective study of all cervical biopsy specimen reports received in a public tertiary hospital in GRMC Gwalior over a period of 5 year from Oct. 2017 to Sept. 2022.

Results: In a total of 593 cases studied 278 (46.8%) cases were malignant, 172 (29%) cases were non neoplastic, 83 (13.9%) cases were polyp, 52 (8.7%) cases were intraepithelial lesion & 8 (1.3%) cases were pre-invasive. Squamous cell carcinoma was the most common cancer & cervicitis was the most common non-neoplastic lesion.

Conclusion: Adequate cervical screening procedure with follow up cervical biopsies helps in early diagnosis and management of premalignant and malignant lesions.

Key Words: Cervical Cancer, Cervicitis, Polyp, Neoplastic, Non-Neoplastic and Malignant.

Abstract ID: 122

SPECTRUM OF PULMONARY LESIONS IN MEDICOLEGAL AUTOPSY CASES IN J.L.N. MEDICAL COLLEGE, AJMER

Presenting Author: **NUPUR VERMA**
Co – Authors:
Affiliation: **JLN MEDICAL COLLEGE**

Aim-Background: This study aimed to identify the spectrum of histopathological alterations in lung specimens, irrespective of cause of death and sex.

Material-Methods: This was an retrospective-prospective study conducted on200 lung specimens of routine autopsies received in the department of pathology, Autopsy section, JLN Medical College, Ajmer, Rajasthan over a period of 1 year.

Results: We found that mean age of our study group was 37.6 years. There were 72.5% male and 27.5% female patients found in this study. In this study majority (26%) reported sudden death followed by 8.5% with acute illness. We found traces of smoking in majority (40.5%) patients. We recorded majority (80%) patients with congestion followed by 31% patients with emphysema followed by 35% specimen with pulmonary edema.

Conclusion: Smoking has strong association with many lung lesions which is evident in our study as well, so people should be educated to stop smoking habit. Primary care physician should enforced to screen periodically for such high risk persons for early detection and treatment of underlying lung pathology. Autopsy study of such lung lesions can provide vision to plan preventive strategy to reduce mortality due to lung pathology.

Keywords: Pulmonary lesions, autopsy.

Abstract ID: 59

HISTOPATHOLOGY AND CLINICORADIOLOGY OF HEPATOBLASTOMA- SURVIVAL ANALYSIS OF AN INTRIGUING NOT SO RARE TUMOR

Presenting Author: **PAHELI MARU**
Co – Authors: **DR TRUPTI PATEL, DR SHILPA KAPOOR**
Affiliation: **DM RESIDENT**

Aim-Background: Primary malignant tumors of the liver account for approximately 1% of all childhood cancer. The most common type is hepatoblastoma, which has an annual incidence of 0.9 per 1 million children. Despite considered as a rare malignancy, the overall incidence of hepatoblastoma exhibited the greatest increase among all pediatric malignancies worldwide due to increase in premature births, low birth weight, earlier detection and better imaging modalities. The aim of this research is 1) To study the clinicoradiological and histopathological features of

hepatoblastoma diagnosed in a tertiary care centre 2) To estimate the survival with relation to various prognostic factors recently identified in the latest WHO classification in Indian context.

Material-Methods: A total of 41 cases of hepatoblastoma diagnosed over a five year period from 2018-2022 were examined by two pathologists independently .Histological features like individual subtype,presence of mitoses,extramedullary hematopoiesis,steatosis microvascular invasion and postchemotherapy changes were noted.Kaplan meier analyses was done to determine survival.

Results: The age range was 5 months-12 years.The male:female ratio was 1.6:1.The AFP levels were >65000 ng /ml in 92 % cases. The masses ranged from 5-14 cm in size with 10 cases having multifocal lesions and 4 cases having lung metastases at presentation. The overall survival was 75.26 %. In common with other studies, survival was better in children <2 years, AFP>100 ng/ml, and female sex and those without lung metastases. In contrast to studies done worldwide,the survival with PRETEXT stage I was only 5 months(CI 2.861-8.319) despite the most common fetal subtype in this group ($p<0.05$)

Conclusion: The histological subtype does not correlate with survival. The reduced survival of patients in PRETEXT stage I despite having fetal pattern on histology suggests identification of other factors that lead to morbidity and mortality in this group.

Keywords: Hepatoblastoma,clinicoradiology,histopathology,IHC,survival

Abstract ID: 60

TERTIATY CARE CENTRE EXPERIENCE-AN OVERVIEW OF PRIMARY MEDIASTINAL LYMPHOMAS

Presenting Author: **PAHELI MARU**
Co – Authors: **DR TRUPTI PATEL, DR SNEHA KAKOTY**
Affiliation: **DM RESIDENT**

Aim-Background: Lymphoma is the most common malignant neoplasm involving the mediastinum accounting for 50% to 60% of all mediastinal malignancies in both children and adults.Only 10% of lymphomas occur primarily in the mediastinum. Very few Indian studies have discussed the frequency, presentation and diagnostic approach of mediastinal lymphomas. This study aims to detail the frequency and histological features of mediastinal lymphomas diagnosed in our Institute, to discuss the close differentials and to compare the morphological and immunohistochemistry (IHC) features of primary mediastinal lymphomas.

Material-Methods: It is a retrospective observational study in which 61 cases of primary mediastinal lymphomas diagnosed over a period of 5 years, their H&E stained slides and immunohistochemistry slides were examined independently by two pathologists and a minimum diagnostic panel of immunohistochemistry markers was suggested for each of the common subtypes identified in this study.

Results: Very few subtypes of lymphomas were identified at the mediastinum. Hodgkin Lymphoma and Non hodgkin lymphoma constituted 12 and 49 cases respectively.T lymphoblastic lymphoma comprises the most common primary mediastinal lymphoma.Other non Hodgkin lymphomas

included primary mediastinal large B cell lymphoma, Follicular lymphoma, small cell lymphoma and the diffuse large B cell Lymphomas,Forty five (73%) cases had predominant involvement of the anterior mediastinum. There is a marked difference between the demographic profiles of cases with primary mediastinal lymphomas between India and worldwide.

Conclusion: A meticulous histological examination in order to direct a limited panel of IHC markers can help arrive at the final diagnosis in settings where molecular and cytogenetic studies are not performed.

Keywords: Primary mediastinal lymphoma, Histopathology,Immunohistochemistry

Abstract ID: 61

ROLE OF FNAC IN DIAGNOSING MALIGNANT LIVER TUMORS

Presenting Author: **PAHELI MARU**
Co – Authors: **DR TRUPTI PATEL, DR JOCELYN SARA PAUL**
Affiliation: **DM RESIDENT**

Aim-Background: Liver is a common site for malignant tumors, both primary and secondary. An early and accurate diagnosis can help in good clinical management of these tumors.Fine needle aspiration cytology (FNAC) is a minimal invasive procedure which aids earlier diagnosis than a biopsy. The main objective of the present study was 1)to establish adequacy and accuracy of FNAC in diagnosing malignant liver tumors 2)To analyze inconclusive and inadequate aspirations and to find out diagnostic pitfalls

Material-Methods: A total of 406 patients underwent image-guided percutaneous FNAC and biopsy sampling of liver mass lesions from 2018-2020.Hematoxylin and eosin and May-Grünwald-Giemsa stains were examined. Statistical analyses was done to determine the sensitivity, specificity and accuracy of FNAC in the diagnosis of liver lesions using histopathological diagnoses on liver biopsy as a gold standard.

Results: Among the 406 aspirates received over a period of three years,364(90%) were adequate, 30 (7%), inconclusive and 12 (3%), inadequate. Among the positive aspirations, primary hepatic malignancies were 69 (20 %) and secondary malignancies were 230(63%), most common being gastrointestinal primaries.The sensitivity, specificity, accuracy,positive predictive value and negative predictive value of FNAC in diagnosing malignant liver lesions in our centre were 87.25 %,71.21%,86.45%,98.29% and 22.72% respectively. The common diagnostic pitfalls were paucicellularity, repeated aspirations from the necrotic area and aspiration of atypical,disorganized and reactive hepatocytes adjacent to a metastasis.

Conclusion: Fine needle aspiration cytology is a cost effective and accurate means of confirming the diagnosis of the primary and secondary malignant tumors of the liver. It should be incorporated as a point of care in personalized medicine.

Keywords: Malignant Liver lesions, Fine Needle aspiration Cytology

Abstract ID: 72

HISTOPATHOLOGICAL STUDY OF SPECTRUM OF THYROIDECTOMY SPECIMENS IN A TERTIARY CARE INSTITUTE

Presenting Author: **PALLAVI MAHAJAN**
Co – Authors: **DR. MOHIT GOEL, DR. MAHIMA SHARMA, DR. ARVIND KHAJURIA**
Affiliation: **ACHARYA SHRI CHANDER COLLEGE OF MEDICAL SCIENCES & HOSPITAL, JAMMU.**

Aim-Background: The objective of the study is to identify the histopathological spectrum of thyroid lesions and find out the frequency of non-neoplastic and neoplastic thyroid lesions with respect to variables like frequency, age, sex distribution, and various histopathological patterns

Material-Methods: The present retrospective cross sectional study was conducted in the Department of Pathology at Acharya Shri Chander College of Medical Sciences & Hospital, Jammu during a period of one year from June 2021 to May 2022. All patients with thyroid swelling and who had undergone any type of thyroid surgery were included in the study. A total of 31 thyroidectomy specimens were selected for histopathological evaluation. The specimens were fixed in 10% formalin and the tissues were processed and stained following standard protocol procedure. The thyroid diseases were classified on histological grounds into neoplastic and non-neoplastic lesions. Percentages and simple frequency tables were used for data analysis.

Results: Out of 31 thyroidectomy specimens, 16 (51.6%) cases of non-neoplastic lesions, and 15 (48.4%) cases of neoplastic lesions were present. There were 14 males and 17 females with a male to female ratio of 1:1.2. In non-neoplastic lesions, the predominant lesion was the multinodular goitre with 12 (38.7%) cases, followed by hurthle cell adenoma with 2 (6.4%) cases. In neoplastic lesions, papillary carcinoma was the commonest lesion with 8 (25.8%) cases followed by follicular carcinoma with 5 (16.1%) cases.

Conclusion: The histopathological evaluation of thyroid lesions is challenging and mandatory as the diagnosis varies from non-neoplastic to rare neoplastic lesions. In the present study, non-neoplastic thyroid lesions were more common than neoplastic ones with female predominance. Multinodular goitre and papillary carcinoma were the most commonly encountered non-neoplastic and neoplastic lesions respectively

Keywords: Thyroid, Thyroidectomy, Neoplastic, Goiter, Adenoma, papillary carcinoma

Abstract ID: 112

A CLINICOPATHOLOGICAL STUDY ON ESOPHAGEAL SQUAMOUS CELL CARCINOMA IN SOUTHERN ASSAM WITH SPECIAL REFERENCE TO CYCLIN-D1

Presenting Author: **PAYEL HAZARI**
Co – Authors: **DR. MONOJ KUMAR DEKA, DR.ARINDAM DAS, DR. S.A.SHEIKH**
Affiliation: **SILCHAR MEDICAL COLLEGE AND HOSPITAL**

Aim-Background: 1. To study the various clinicopathological parameters in esophageal squamous cell carcinoma cases
2. To study the expression of Cyclin-D1 in different grades of esophageal squamous cell carcinoma and establish a correlation

Material-Methods: We examined 134 samples of ESCC and categorized them histologically as well-differentiated, moderately differentiated, and poorly differentiated. For assessing the expression of Cyclin-D1, immunohistochemistry was done in all these cases.

Results: Out of 134 cases, 38.8% were in 6th decade of life. Male was more commonly affected than female. Relation with anemia, clinical features, BUN: Creatinine, addiction, comorbidities, ABO-Rh grouping and TNM were analyzed. The low-income population was found to be associated with its incidence. 63.4 % of cases were moderately differentiated, followed by 34.3% well differentiated and 2.2% poorly differentiated carcinoma. The Middle third of the esophagus was involved commonly. Nodal metastasis was found in 97.5% of cases and 17.5% distant metastasis. Cyclin–D1 expression was seen in 43.5% of well differentiated carcinoma, 65% of moderately differentiated squamous cell carcinoma and 66.7% of poorly differentiated carcinoma.

Conclusion: ESCC was found to be associated with low-income group, male in 6th decade Moderately-differentiated squamous cell carcinoma of the esophagus was in majority in this study. Cyclin-D1 expression was more in poorly-differentiated carcinoma of the esophagus.

Keywords: Esophageal squamous cell carcinoma(ESCC), addiction, Immunohistochemistry, Cyclin-D1

Abstract ID: 79

IMMUNOHISTOCHEMICAL EXPRESSION OF PHOSPHATASE AND TENSIN HOMOLOG IN RELATION TO MOLECULAR CLASSIFICATION OF CARCINOMA BREAST

Presenting Author: **POOJA RATHEE**
Co – Authors: **DR SANJAY MARWAH, DR SUNITA SINGH**
Affiliation: **JUNIOR RESIDENT**

Aim-Background: To investigate the immunohistochemical expression of PTEN in breast cancer cases and to correlate this expression with clinicopathologic parameters and molecular classification of breast carcinoma.

Material-Methods: This descriptive study was conducted on 100 modified radical mastectomy specimens received in the department of pathology, PGIMS, Rohtak. Immunohistochemical expression of PTEN gene, ER, PR and Her2neu was determined using specific monoclonal antibodies. PTEN staining was assessed by examining the nuclear and cytoplasmic staining of tumor cells with normal breast epithelial tissue taken as positive control. PTEN expression status was correlated with various clinicopathological parameters including age, tumor size, tumor type, lymph node status, histologic grade and NPI.

Results: 52/100 (52.0%) of cases had decreased expression while its expression retained in 48/100 (48.0%) of cases. Loss of expression was significantly associated with histological grade of tumor and Nottingham Prognostic Index (NPI). However, loss of PTEN expression did not correlate with age, side and size of tumor and lymph node metastasis.

Conclusion: Loss of PTEN expression can be assessed using immunohistochemistry. PTEN loss can predict worse prognosis and poor survival in breast cancer patients.

Keywords: Phosphatase and tensin homolog, breast carcinoma, immunohistochemistry, NPI, prognosis, survival.

Abstract ID: 128

MYOEPITHELIOMA OF THE VOCAL FOLD – A CASE REPORT

Presenting Author: **POORVA GURJAR**
Co – Authors:
Affiliation: **MMC2019020649**

Aim-Background: To focus on the peculiarities of the differential diagnosis for Myoepithelioma that are important for the histopathologic diagnosis as it is an extremely rare, benign tumor with non-specific symptoms

Material-Methods: We report a case of 16-year-old male presenting with hoarseness of voice. He came to our hospital with history of previous three surgeries; the histopathological examination suggesting vocal polyp and inflammatory myofibroblastic tumor. The stroboscopy revealed a multilobulated vascular lesion attached to the left vocal process. CT scan showed a well demarcated focal nodular lesion arising from left true vocal cord, projecting into laryngeal lumen. A major laser surgery was performed under general anesthesia in our hospital. The specimen was sent to our histopathology department for the histopathological examination.

Results: The histologic diagnosis was reported as recurrent spindle cell tumor of left vocal fold. Further immunohistochemical studies showed positivity for Pan CK, EMA, SMA and were negative for Calponin, S100 protein, CD34, CK5/6, P40; Ki67 was reported as 10-11% in areas of high proliferation. Hence, the final histopathological diagnosis was given as Myoepithelioma of the left vocal fold.

Conclusion: Myoepithelioma is a rare salivary gland tumor arising from proliferation of myoepithelial cells. The larynx constitutes a very rare localization for myoepithelioma, presenting with non specific symptoms. It is important and challenging to exclude the peculiar differential diagnoses to approach the final histologic diagnosis with targeted methods. The neoplastic nature and the expansion of the lesion will determine the therapeutic approach, the final outcome and the prognosis of the patient.

Keywords: Myoepithelioma, Vocal fold, Tumor, Histopathology, Immunohistochemistry

Abstract ID: 71

STUDY OF EXPRESSION OF ER/PR IN VARIOUS HISTOMORPHOLOGICAL PATTERNS OF AUB IN ENDOMETRIAL BIOPSIES

Presenting Author: **PRASHANT TRIVEDI**
Co – Authors: **DR. MANOJ SHARMA, DR SONIA AGARWAL, DR PURUSHOTTAM MADERNA, DR SHWETA BANSAL, DR. HRISHIKESH SHARMA, DR. HINAL PUROHIT**
Affiliation: **PG RESIDENT**

Aim-Background:1) To study endometrial biopsies for histomorphological pattern in AUB, 2) To associate histomorphology of endometrial biopsies with ER/PR expression, 3) The significance of hormone receptor expression in endometrial carcinoma.

Material-Methods: This is a hospital based observational study which is conducted in Department of Pathology, Mahatma Gandhi Medical College and Hospital, Jaipur. Total 110 endometrial biopsies are studied and data is prepared. We study endometrial biopsies for histomorphological pattern with ER/PR expression.

Results: Out of 110 cases, 40% cases are in the age group of 31 to 40 years. Premenopausal bleeding cases are 75.45%. Premenopausal bleeding is more common in 31 to 40 years of age group whereas postmenopausal bleeding is more common in age group greater than 60 years. Menorrhagia (32.73%) is the most common clinical feature followed by polymenorrhagia. According to histopathological examination, 50% cases are of proliferative phase endometrium and 16.36% cases are of secretory phase endometrium. In neoplastic lesion, 90% cases are positive for ER and PR whereas in non-neoplastic lesion, 57% are ER positive while 21% are PR positive.

Conclusion: We conclude that the large number of patients belong to the age group 31-40 years. Predominantly menorrhagia (32.73%) is the most common presenting complaint. In the study, an attempt has been made to find out the clinical presentation and different aetiological factor of AUB. By use of hormone receptors expression of ER/PR and observing the prognosis of endometrial lesion can be assessed for early and proper management.

Keywords: AUB, Endometrial biopsy, ER/PR

Abstract ID: 81

INTRAOPERATIVE CYTOLOGY OF OVARIAN MASSES

Presenting Author: **RAJSHREE CHOUHAN**
Co – Authors: **DR. GEETA PACHORI**
Affiliation: **RUHS**

Aim-Background: To determine the role of intraoperative cytology in diagnostic evaluation of ovarian masses , assess overall accuracy of intraoperative cytology and to compare the cytological diagnosis with histopathological diagnosis and to compare the cytological diagnosis with histopathological diagnosis.

Material-Methods: A 1 year prospective study was carried out. Cytology smears was taken peroperatively in the Department of gynaecology and obstetrics, Jawahar Lal Nehru Medical College and attached Hospitals .The specimens was analysed in detail macroscopically for various parameters like size, external surface and consistency and cut sections with contents of cyst. Depending on the morphological consistency such as solid, solid – cystic or cystic nature, scraping and touch imprints would be taken and stained with Haematoxylin and Eosin and Giemsa stains and cytological diagnosis was correlated with histological diagnosis .

Results: A total of 82 cases were studied A variety of lesion were encountered in the study. Out of 82 cases, 24 (30%) cases were diagnosed as non-neoplastic masses and neoplastic masses constituted 58 (70%) cases. In the neoplastic masses, 42 (72.41%) cases were diagnosed as benign, 14 (24.13%) were malignant and 2 (3.46%) were borderline cases on cytological diagnosis. Histopathological diagnosis showed 24 cases were diagnosed as non-neoplastic lesion and neoplastic lesion constituted 58 cases. In the neoplastic lesion, 39 (67.24%) cases were diagnosed as benign, 15(25.86%) were malignant and 4 were borderline cases on histological diagnosis. The sensitivity of intraoperative cytology was found 84.20%, specificity 100.00%, PPV 100.00%, NVP 95.45% and overall diagnostic accuracy of 96.34%.

Conclusion: Intraoperative cytology can be used as an adjunct to histopathology for rapid and early diagnosis in the operation theatre, thus helping better management of patients.

Keywords: Ovarian masses, intraoperative cytology, histopathogical diagnosis, serous tumors

Abstract ID: 37

USE OF THE INTERNATIONAL SYSTEM FOR REPORTING SEROUS FLUID CYTOPATHOLOGY (TIS) AND COMPARATIVE ANALYSIS OF THE CELL BLOCK TECHNIQUE VIS-A- VIS CYTOLOGICAL SMEAR EXAMINATION IN THE EFFUSIONS: AN OBESRVATIONAL INSTITUTIONAL STUDY

Presenting Author: **RASHI GUPTA**
Co – Authors: **DR PRIYANKA KIYAWAT, DR ASHOK PANCHONIA**
Affiliation: **MAHATMA GANDHI MEMORIAL MEDICAL COLLEGE**

Aim-Background: Use of TIS for classifying Serous fluids and compare results of conventional fluid cytology with cell block preparation technique in serous effusions.

Material-Methods: Pleural, pericardial, and peritoneal effusion samples received for cytological examination were classified according to the TIS. Cell block preparation method was used for suspicious malignant cases and results compared.

Results: A total of 1456 effusions were studied. Pleural samples (864) were reclassified as follows: 17 (2.0%) as non-diagnostic (ND), 648 (75.0%) as negative for malignancy (NFM), 69 (8.0%) as atypia of undetermined significance (AUS), 34 (4.0%) as suspicious of malignancy (SFM), and 95 (11%) as malignant (M). Pericardial samples (14) were reclassified as follows:12 86%) as ND, 2(14.0%) as NFM. Peritoneal cases (578) were re-categorised as follows: 23 (4.0%) as ND, 479(83%) as NFM, 17 (3.0%) as AUS, 11 (2.0%) as SFM, and 47 (8.0) as M. Cell block were prepared for those fluids which fell in the category of suspicious for malignancy. Out of 34 cases of pleural fluid which were suspicious for malignancy, 08 cases were confirmed as malignancy by cell block technique and out of 11 cases of peritoneal fluid which were suspicious for malignancy 04 were confirmed as malignant. Thus the use of combination of smear technique and cellular block has given 36% more malignant peritoneal fluids and 24% more malignant pleural fluids than what was detected through smear themselves.

Conclusion: Pleural, pericardial, and peritoneal cytology show high specificity and moderate sensitivity in the evaluation of serous effusions. The cell block technique enhanced positive outcomes and assisted in demonstrating better architectural patterns . The cell block technique can give morphological details while preserving architectural motifs.

Keywords: Serous effusions, cytodiagnostic sesitivity,TIS ,cell block preparation

Abstract ID: 31

EXPRESSION OF P63 IN BREAST LESIONS

Presenting Author: **RESHMA NAMBIYAR**
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Affiliation: **SWAMI RAMA HIMALAYAN UNIVERSITY**

Aim-Background:1.Statistical analysis of expression of p63 in a spectrum of breast lesions.
2.Its correlation and association with clinicopathological parameters.

Material-Methods: The study was conducted over a period of one year during which expression of P63 was studied by immunohistochemical staining on histopathology slides after morphological study and diagnosis. Further association and correlation was carried out by comparing the expression of to radiology, morphological grading and immunohistochemical markers of breast carcinoma.65 cases were chosen out of which 50% benign cases acted as control and the remaining cases of carcinoma were studied for expression of p63.

Results: Immuno- expression of P63 was studied in total of 60 cases. 50% cases showed negative immuno-expression for p63, 35% cases were weakly positive and 15% were strongly positive. Expression of p63 subclassified according to morphology depicted that 84.4% cases of infiltrating ductal carcinoma showed no immunostaining for p63. 80% cases of ductal carcinoma in situ showed weak to strong immunostaining for p63, however 20% cases showed negative immunostaining which confirms the presence of an invasive component. The association between expression of p63 with age distribution, morphology of breast lesion, BIRADS, RB scoring and molecular diagnosis of breast carcinoma were found to be concordant with quoted studies.

Conclusion: The present study revealed that all benign breast lesions and few cases of ductal carcinoma in situ showed the high immuno- expression of P63. Although majority cases of infiltrating ductal carcinoma showed negative immunostaining for p63, a fraction of carcinomas that expressed P63 were ER positive, PR negative and Her2Neu positive. Further evaluation to depict mutated isoforms can help in development of targeted chemotherapy, prognosis and overall survival rate of breast cancer.

Keywords: p63, invasive breast carcinoma, ductal carcinoma in situ, myoepithelial marker, immunohistochemistry

Abstract ID: 41

INCIDENCE OF DYSPLASIA IN INFLAMMATORY BOWEL DISEASE

Presenting Author: **RITU AGRAWAL**
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Affiliation: **SCHOOL OF MEDICAL SCIENCE AND RESEARCH, SHARDA UNIVERSITY, GREATER NOIDA**

Aim-Background: Patients with longstanding and extensive ulcerative colitis (UC) are at increased risk for the development of colonic carcinoma. To prevent this complication or to detect early lesions, it has been recommended that high risk patients have periodic surveillance by colonoscopy and mucosal biopsy to identify epithelial dysplasia

Material-Methods: The present study is a Retrospective study with a sample size of 14 cases. A total of 14 cases were studied from Jan 2018 to July 2022. The slides were reviewed and histological findings were recorded

Results: Out of all the cases reviewed 6 were Ulcerative colitis and 8 were Nonspecific colitis. All the cases of Ulcerative colitis showed varying degree of dysplasia out of which 50% showed severe dysplasia (n=3), rest 50% showed moderate dysplasia (n=3). Hence all the cases of Ulcerative colitis showed significant percentage of dysplastic changes not amounting to carcinoma in situ. On the contrary Nonspecific colitis had no severe dysplasia and 50% of the cases showed only mild dysplasia (n=4) which are unlikely to progress beyond this stage

Conclusion: Dysplasia in IBD is a significant association which needs to be documented and patient followed up for a good prognosis

Keywords: Ulcerative colitis, Dysplasia, Incidence, Nonspecific colitis

Abstract ID: 33

HISTOMORPHOLOGICAL ANALYSIS OF BREAST LESIONS

Presenting Author: **RUHI**
Co – Authors:
Affiliation: **R.D GARDI MEDICAL COLLEGE UJJAIN, MADHYA PRADESH**

Aim-Background:
1. To analyze age and gender wise distribution of breast lesions
2. To analyze histopathological types and frequencies of breast lesions
3. To analyze clinicopathological correlation of breast lesions.

Material-Methods: Retrospective study of various breast lesions biopsies, lumpectomy and Modified Radical Mastectomy (MRM) specimen received in the histopathology section of

department of pathology from January 2021 to September 2022. The histopathological diagnosis was made after routine processing and hematoxylin - eosin staining.

Results: A total of 177 breast lesions were analyzed. 125 (70.6%) of these lesions were either inflammatory or benign proliferative/ non neoplastic lesions while 52 (29.4%) were malignant neoplasms. Mastitis was the most common non neoplastic breast lesion with(52.1%). Fibroadenoma was the most common benign breast lesion with 82 cases(79.6%). Invasive duct carcinoma (NST) was the most with 43 (82.6%) cases among all malignant breast lesions. The sensitivity and specificity of diagnosing benign cases clinically was 96.0% and 94.23% respectively while that for malignant cases was 94.23% and 96.0% respectively, and 95.4% accuracy for diagnosis of breast lesions

Conclusion: In the present study, the most common non neoplastic lesion was mastitis with 52.1% incidence, benign lesion was fibroadenoma with 79.6% incidence and the most common malignant lesion was infiltrating duct carcinoma(NST) with 82.6% incidence. The peak incidence of benign lesions was in the age group of <20–30 years, and the maximum percentage of malignancy was seen in 61-70 years age group.

Keywords: Histopathology; Breast Malignancy; Benign Breast Disease; Clinico-Pathological Study.

Abstract ID: 9

SPECTRUM OF HEMATOLOGICAL DISEASES IN KASHMIRI POPULATION: A 5-YEAR HOSPITAL BASED STUDY

Presenting Author: **SALMA GULL**
Co – Authors: **DR FAHIM MANZOOR, NUSRAT BASHIR, SHAREEFA AKHTER, SHEIKH BILAL**
Affiliation: **GOVERNMENT MEDICAL COLLEGE SRINAGAR**

Aim-Background: This study will provide current and future Haematologists / Physicians / researchers with reliable data to delve into individual Hematological diseases and derive the incidence and prevalence of such disorders in the population of this region

Material-Methods: This was a retrospective study done in the department of Pathology, in a tertiary care hospital, over a period of five years from January 2015- December 2019. A total of 5287 cases were included in this study. The clinical details were taken from case sheets and BMA reports of the patients were collected from the bone marrow register of Pathology department. Then the data obtained was statistically analyzed. The procedure of Bone marrow aspiration was done after giving 2% xylocaine as local anesthesia from posterior iliac spine. Leishman stained peripheral blood and bone marrow smears were studied. Bone marrow examination was done on Leishman stained bone marrow aspiration smears and imprint smears. The diagnosis among various hematologic disorders was confirmed by using the standard criteria.

Results: Out of 5287 cases, 1416 were benign, 1774 were malignant, 668 cases were screened for remission of which, 570 showed remission while 98 cases showed relapse. Out of 1774 Malignant cases, cases of Acute myeloid Leukemia were most common (521) and constituted 29.36% of Malignancies followed by Acute Lymphoid Leukemias (410) constituting 23.11% of Malignancies and Multiple Myeloma (325) constituting 18.32% of Malignancies. Other malignant cases included

Burkitt lymphoma, NHL infiltration, Chronic lymphocytic leukemia (CLL), Chronic myelogenous leukemia (CML), Myelodysplastic syndrome, Essential Thrombocythaemia, Myelofibrosis and Metastatic deposits of tumors like Neuroblastoma (15 cases), PNET (16), Ewing Sarcoma (5), Round cell tumor (unclassified) (5), Rhabdomyosarcoma (5), Breast Metastasis (5) and Lung Metastasis (14).

Conclusion: A vast spectrum of benign and malignant hematological disorders is found to be prevalent in our set-up. The matter of concern is the increasing trend of Malignant hematological disorders in our population which requires further research to study the individual etiologies.

Keywords: Hematological disorders, kashmiri population, neoplastic, non neoplastic

Abstract ID: 29

ASSESSMENT OF BILIRUBIN LEVELS IN THE NEWBORN BABIES OF ALLOIMMUNIZED MOTHERS-A TERTIARY CARE CENTRE STUDY

Presenting Author: **SAMAN USMANI**
Co – Authors: **DR. ASIM ISRAR KHAN, DR. SUHAIL UR RAHMAN, DR. S. H ARIF, DR. KAFIL AKHTAR, DR. IMAM BANO.**
Affiliation: **JUNIOR RESIDENT**

Aim-Background: To assess the bilirubin levels in the newborn babies of alloimmunized mothers.

Material-Methods: The study was conducted on patients attending antenatal clinic (ANC) of department of Obstetrics and Gynaecology, who were tested positive for alloantibody conducted in blood bank and Department of Pathology JNMCH,AMU Aligarh, for a period of two years.A total of 1780 women attended the ANC out of which 34 females were found to be alloimmunized. Results: 34 women tested positive with alloimmunization with rate of 1.91%.Out of which 12 were Rh(D) positive an 22 were Rh(D) negative.

Cord bilirubin levels was found to be <2mg/dl in 1495 (83.99%) newborn,2-3mg/dl in 193(10.84%) newborn,3-4 mg/dl in 86 (4.83%),4-5mg/dl in 4 (0.22%) newborns and more than 5mg/dl in other 2 (0.11%) newborn.

Significant correlation was found between raised cord bilirubin levels with Rh incompatability and raised cord bilirubin levels with alloimmunization however there was no significant correlation between cord bilirubin levels and ABO incompatibility

Conclusion: The cord bilirubin level is a significant predictor of newborn hyperbilirubinemia, and we found a significant correlation between raised cord bilirubin levels with Rh incompatibility and alloimmunization. Therefore early detection of cord bilirubin levels and timely treatment plays a crucial role in preventing hemolytic disease of newborn.

Keywords: Alloimmunization, Cord bilirubin, Hemolytic disease of newborn, Hyperbilirubinemia

Abstract ID: 49

PROFILE OF NON- HEMATOLOGICAL PEDIATRIC TUMORS: A CLINICOPATHOLOGICAL STUDY

Presenting Author: **SANYA BHASIN**
Co – Authors: **DR. NADIA SHIRAZI, DR. MEENA HARSH , DR. KUNAL DAS**
Affiliation: **RESIDENT, DEPARTMENT OF PATHOLOGY, HIMALAYAN INSTITUTE OF MEDICAL SCIENCES, DEHRADUN**

Aim-Background: To study the clinical and pathological profile of non-hematological tumors in pediatric patients (<18 year age).

Material-Methods: This study was conducted in department of Pathology, Himalayan Institute of Medical Sciences, Dehradun over a period of one year. This study included 96 patients (< 18 years of age), diagnosed as benign and malignant tumours. Their diagnosis was made on cytology, histology and immunohistochemistry.

Results: Out of total 96 cases of tumors 63 (65.6%) were boys and 33 (34.4%) were girls. Highest number of cases 51 (53.1%), were in 13-18 years of age. Benign tumours comprised 49 (51.04%) cases, while malignant tumors comprised 47 (48.9 %) cases. Among benign tumours, bone tumours were the most common tumours comprising12 (24.5%) cases followed by vascular tumours and breast neoplasm. Among malignant tumours, lymphomas were most common seen in 13 (27.7%) cases, followed by soft tissue tumours and bone tumours.

Conclusion: This study was done in a tertiary health care centre provides an insight into the pattern of distribution of pediatric tumours in north western part of country, which is salient in the evaluation and planning of health strategies. In India, as there is paucity of data due to scarcity of devoted cancer registries in pediatric population, such studies play a considerable role in effective disease management in pediatric patients.

Keywords: Children, clinopathological

Abstract ID: 77

CORRELATION OF CLINICAL LABORATORY PARAMETERS OF COVID-19 PATIENTS WITH RADIOLOGICAL FINDINGS

Presenting Author: **SARAH IRFAN**
Co – Authors: **MOHAMMAD IMRAN, ZEESHAN NAHID, ANKITA PARASHAR, ZOHRA SIDDIQUI**
Affiliation: **JUNIOR RESIDENT**

Aim-Background: 1) To study the clinical laboratory parameters of Covid 19 patients. | 2) To correlate the Laboratory parametres of those patients with CT severity score .

Material-Methods: The present study was a retrospective study which included consecutive RT PCR positive indoor patients who had there laboratory test including C-reactive protein, D-dimer, interleukin-6, serum ferritin within 48 hours of admission and also underwent HRCT Chest in the Department of Radio diagnosis at the time of admission/ within 72 hours of admission. Total 1490 RT-PCR positive patients admitted to hospital out of which 657 underwent HRCT thorax. Rest of the patient didn't had HRCT done and were evaluated by Chest x-ray.

Sample size - Out of 657 RT- PCR positive patients we have included 298 patients (Study Population) following inclusion criteria of HRCT done at the time of admission or within 72 hours of admission. Rest 359 patients were excluded following the exclusion criteria. CRP, d-dimer,IL-6 and ferritin levels were done in 293, 291, 215 and 295 respectively. In all cases, a semi-quantitative CT severity scoring proposed by Pan et al., 2020.

The laboratory parameters were done on COBAS 6000 analyser (for CRP, IL-6 and ferritin) and STAG-STA compact Max, serial number CF74060753 (for d-Dimer).

Results: 298 patients were included with the following information been collected: age, gender, laboratory tests including CRP, d-dimer,IL-6 and ferritin levels were done in 293, 291, 215 and 295 respectively. The age group observed was in the range of 20-89 years with a mean age of 53.34±14.4 years. We concluded that higher the CRP level, severe the HRCT scans. CT severity score of severe categories showed maximum cases with the CRP level of both 50-100mg/L and >100mg/L. For level of D-dimer maximum cases with >1 but <2, 2-4 and 4 mcg/ml all were seen in patients having severe CT scans. (20.4%, 16.7% and 3.7% respectively). Elevated ferritin level of >600ng/ml in 34.2% of cases with maximum elevation of >2400ng/ml seen in 4 cases, of which 2 (50%) were of patient having severe CT severity and one each of mild (25%) and moderate (25%). Raised IL-6 of >7pg/ml was seen in 80.9% of severe CT scans, followed by 74.2% of moderate CT scans.

Conclusion: We observed that when initial laboratory parameters and CT severity scores on imaging within 72 hours were done., there was a statistical significance between Ct severity scores and level of CRP, D-Dimer, IL-6 and serum ferritin. All showed $p<0.005$, which means we can prognosticate those patients on the basis of laboratory parameters and CT severity score and thus their clinical outcome.

Keywords: Covid19, HRCT, RT-PCR, CT severity score

Abstract ID: 30

DIRECT CORRELATION OF BIOMARKER INTERLEUKIN-6 AND RISK OF SEVERE DISEASE AND MORTALITY IN COVID-19 PATIENTS

Presenting Author: **SATYAM CHAURASIA**
Co – Authors: **DR. O. P. BHARGAVA**
Affiliation: **NETAJI SUBHASH CHANDRA BOSE MEDICAL COLLEGE AND HOSPITAL**

Aim-Background: To recognize the role of proinflammatory cytokine IL-6 and risk of developing 'cytokine storm' causing fatal pneumonitis. Quantification of IL-6 level in blood of the patients for practical use of mechanical ventilatory support (high flow oxygen during treatment and on admission) in a difficult patient. To assess relationship between patient's severity and outcome (mortality) in COVID-19 affected individuals as prognostic indicator.

Material-Methods: We conducted a retrospective study on patients admitted in ICU of pulmonary medicine department with diagnosis of COVID-19 during period between March 15, 2021 to May 15, 2021. A regular and serial monitoring of IL-6 level on selected patients done.

Results: Of a total of 182 patients affected with COVID-19 admitted during the period specified, we included about 56 patients with the disease. We did regular serial monitoring of IL-6 in blood. There was a significant difference in IL-6 levels between survivors and non survivors over the period of time (p=0.002); in addition Interleukin 6 level found to have attained maximal levels when compared to survivors (712 [350-2116] vs. 340 [195-646] picogram/mL, p=0.01).

Conclusion: The risk of severity and fatal outcome (mortality) is directly proportional to the IL-6 level in blood of the patient affected with COVID-19. The practical use of ventilatory support in patient requiring high flow oxygen and judicial use of monoclonal antibody drug against IL-6 (Tocilizumab) can be based on baseline levels of IL-6 level in blood; can help decrease morbidity and mortality in patients. IL-6 level correlates with respiratory failure (PaO2 and SpO2).

Keywords: COVID-19, cytokine storm and IL-6

Abstract ID: 18

HISTOPATHOLOGICAL STUDY OF SOFT TISSUE TUMORS AND ITS IMMUNOHISTOLOGICAL MARKERS

Presenting Author: **SHALINI GUPTA**
Co – Authors:
Affiliation:

Aim-Background:
1. To know the clinical and histological features of soft tissue tumors
2. To assess the role of IHC for confirmation of histological types of certain soft tissue malignancies.

Material-Methods:
• Six sections of 4mm thickness were cut from each block one section was stained with Hematoxylin and Eosin stain for light microscopic evaluation and histological typing, while rest of the slides were used for IHC
• A simple panel of Four markers were used in cases of soft tissue tissue malignancy which include Vimentin, Desmin, S100 and CD34.

Results: Out of 122 cases of soft tissue tumors, 110 (90.16%) were benign and 12 (9.84%) were malignant.

Conclusion:
1. The most common histological group was of the adipose tumor, which accounted for 62.4 % of all soft tissue tumors
2. 6. The commonest malignant tumor was fibrosarcoma (41.7%), liposarcoma (33.4%) and malignant fibrous histiocytoma (16.6%) in the descending order of frequency.
3. 7. IHC markers CD34 and vimentin were of great efficacy in distinguishing among various fibroblastic tumors and hence in confirming the diagnosis. S100 protein helped in distinguishing lipomatous lesions.

Keywords: Benign and malignant soft tissue tumor

Abstract ID: 137

INTRACRANIAL MYOPERICYTOMA: A RARE BENIGN TUMOR AT AN EXTREMELY RARE LOCATION

Presenting Author: **PRACHI**
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Affiliation: **[1]Department of Pathology, Dharamshila Narayana superpesiciality hospital, New Delhi, India. | [2]Department of Neurosurgery, Dharamshila Narayana superpesiciality hospital, New Delhi, India.**

Background: Myopericytoma is low grade benign tumour, that usually arises in the subcutaneous and superficial soft tissue of the extremities. Very few cases have been reported at other location, with intracranial site being exceptional. Hereby, we report this rarest entity of intracranial myopericytoma, whose definitive diagnosis is possible only with the aid of detailed and comprehensive histopathological and immunohistochemical examination to exclude other similar entities.

Case Report: A 50 year old female with a history of seizure associated with nausea and vomiting along with left sided weakness since one month. Contrast enhanced MRI revealed well- defined heterogeneously enhanceing extra- axial mass in the right parafalcine region causing contralateral midline shift and was reported as PARAFALCINE MENINGIOMA. Right frontal craniotomy and tumor excision was done.

PATHOLOGICAL FINDINGS-
Histologically, the tumor was composed of syncytial aggregates of round to plump fusiform cells forming whorls around prominent branching congested vessels, with no evidence of pleomorphism or necrosis or mitosis. Morphological based diagnosis are Meningioma, Myofibroblastic tumor, Vascular tumor, Pericytic tumor and Nerve sheath tumour.

Immunohistochemistry: The tumor cells expressed alpha-smooth muscle actin (SMA) and h-caldesmon. Epithelial membrane antigen,HMB-45, Melan-A, SOX-10, signal transducer and activator of transcription 6 (STAT6), and S-100, were negative. A CD34 immunostain showed positivity in endothelial cells only. Based on the combination of morphological and immunohistochemistry panel, diagnosis of mesenchymal non-meningothelial tumour- intracranial myopericytoma was rendered.

Conclusion: It is necessary to create awareness about this rare benign tumor among radiologists and neurosurgeons. The importance of detailed and comprehensive histologic and immunohistochemical evaluation cannot be overemphasized in such entities.

Keywords: intracranial myopericytoma, pathological, immunohistochemicalr

Abstract ID: 68

MOLECULAR STUDY OF BREAST CARCINOMA CASES BY IMMUNOHISTOCHEMISTRY AND ITS CORRELATION WITH HISTOPATHOLOGICAL GRADING.

Presenting Author: **SHIVANI SWARNKAR**
Co – Authors: **DR. MALA PATIDAR**
Affiliation:

Aim-Background: The correlation between Nottingham's Modified Bloom Richardson Histopathological Grading System and the molecular subtyping of breast cancer. To find out the fact that in this world of molecular advancement, whether the molecular subtyping is significant enough to form the cornerstone of treatment or do we still have to rely on the older conventional NGS system.

Material-Methods: A total of 42 female patients who underwent modified radical mastectomy in the department of surgery after being diagnosed with carcinoma breast on FNAC or core needle biopsy were included. All these specimens were grossed as per the CAP Protocol and a minimum of 12 lymph nodes were resected. Tissues were processed as per the standard protocols and slides were stained with H&E staining for histopathological examination.

Results: A total of 42 cases of breast carcinoma were included in the study.35.7% cases belonged to age group of 41-50 years with mean age of years. In Bloom Richardson Grading, 52.4% cases belong to grade II, 45.2% cases belong to grade III and 2.4% cases belong to grade I.

Conclusion: This study showed that molecular subtypes are correlated with histological subtypes and reflect the prognosis. Luminal groups tend to have a lower proliferative index and better prognosis while HER2 NEU and Basal like have higher proliferative index and poor prognosis. Luminal groups respond well to hormonal therapies,HER 2 NEU respond well to trastuzumab while basal like respond to chemotherapy.

Keywords: Breast carcinoma, molecular studies with HER 2 NEU

Abstract ID: 121

SIGNIFICANCE OF HEMATOLOGICAL SCORING SYSTEM IN NEONATAL SEPTICEMIA

Presenting Author: **SHUBHAM MISHRA**
Co – Authors:
Affiliation: **JLN MEDICAL COLLEGE**

Aim-Background: The study aims to see the significance of Hematological Scoring System in Neonatal Septicemia.

Material-Methods: This was an prospective study over a period of one year from January 2021 to December 2021 at the department of pathology J.L.N Medical College and attached group of hospitals, Ajmer (Rajasthan).The sample size of the study will be approximately 153 cases.

Results: In our study majority of patients were male. We found that majority (23) patients were positive for CONS followed by 8 patients of Enterococcus. In this study area under curve for prediction of sepsis by Total was 0.49, for Immature AUC was 0.59, for Immature :Total Ratio it was 0.83 and Immature : Mature Ratio it was 0.79.

Conclusion: HSS is a simple, quick, cost effective tool which can be used as a screening test for early diagnosis of neonatal sepsis. It may aid the clinicians in identifying sepsis and to institute proper anti-biotic therapy. Unnecessary exposure of infants to antibiotic therapy can thus be avoided.

Keywords: Neonatal, Sepsis, Hematological Scoring System

Abstract ID: 20

STUDY OF EVALUATION OF LEVEL OF SERUMZINC AND COPPER IN PATIENTS WITH TRAUMATIC BRAIN INJURY

Presenting Author: **SHYAMSUNDAR YADAV**
Co – Authors: **DR. SUSHMA BJ, DR. SANJEEV ATTRY**
Affiliation: **THE ASSOCIATION PRACTICING PATHOLOGY(REGD)**

Aim-Background: EVALUATION OF LEVEL OF SERUM ZINC AND COPPER IN PATIENTS WITH IN TRAUMATIC

Material-Methods: This study was conducted in department of biochemistry and neuro surgery at NIMS hospital jaipur ,Rajsthan in TBI patients.The patient enrolled for the study were moderate to severe having GCS 6-12.

Results: total 100 TBI patients were enrolled out of which 9o% were male and 10% were female. The mean age in year was 18-35 years.in our study,we found that 65% patients had moderate TBI and 35% had severe TBI. It evident in our study that serum zinc and copper level were significantly reduced where as moderately reduced in moderate TBI.

Conclusion: it was an evident in our study had serum copper and zinc levels were significantly reduced in severe TBI and moderately reduced in moderate TBI

Keywords: TBI,GCS,ADH

Abstract ID: 80

HISTOPATHOLOGY OF MUCORMYCOSIS IN COVID-19 IN-PATIENTS AT TERTIARY CARE HOSPITAL

Presenting Author: **SIDDHARTH DAHIYA**
Co – Authors: **DR. GEETA PACHORI**
Affiliation: **RUHS**

Aim-Background: To study the role of histopathology in mucormycosis and the predisposing factors associated in development of mucormycosis in post COVID-19 patients.

Material-Methods: A prospective observational study was conducted in our hospital in the department of pathology over a period of 2 months on 40 patients with mucormycosis who were infected with SARS-CoV-2 virus.

Results: Out of the 40 patients with mucormycosis studied in post COVID-19 patients, age ranged from 19–80 years, of which 27 were men and 13 were women. Sites involved by mucormycosis were sinuses, turbinates, nasal cavity orbit, cranium, nasolacrimal duct . Ethmoid sinus was most involved, followed by maxillary sinus. Mixed fungal infections (Aspergillus sp. were noted in 2 cases. Associated comorbidities were noted in 36 patients, with uncontrolled diabetes mellitus being the most common. On histopathological examination, angioinvasion was present in 7 patients, perineural invasion was present in 3 patients, and necrosis was present in 34 patients. The number of patients discharged after surgery was 35, whereas 5 died. After histopathological confirmation, 100% of them received amphotericin.

Conclusion: Histopathological features of mucormycosis are angioinvasion, perineural invasion, fungal load, and areas of necrosis. They were directly proportional to the mortality rate. Thus, histopathology can help in assessing prognosis. So that clinicians can optimize treatment accordingly. Diabetes, hypertension, history of corticosteroid intake for treatment of COVID-19 and Contaminated water used in humidifiers, prolonged use of the same masks and tubes is also strongly believed to cause mucormycosis.

Keywords: COVID-19, mucormycosis, Fungus

Abstract ID: 98

IMPACT OF COVID-19 INFECTION ON HEMATOLOGICAL PARAMETERS AND BIOCHEMICAL MARKERS

Presenting Author: **SIDDHARTH DAHIYA**
Co – Authors: **DR. GEETA PACHORI**
Affiliation: **RUHS**

Aim-Background: Changes in haematological parameters and biochemical markers in patients with COVID-19 infection are very important features of the disease. This study was conducted to assess the alteration in routine blood parameters and explore changes of biochemical markers in peripheral blood.

Material-Methods: An observational prospective study was done from November 2020 to July 2021. It included 200 patients with confirmed COVID-19 infection, admitted to Jawahar Lal Nehru Medical College And Associate Groups of Hospital, Ajmer (Rajasthan).

Results: In comparison between survivor and non-survivor, the non-survivor patients with COVID-19 have reduce numbers of lymphocytes, Haemoglobin, and Platelets counts ($p<0.001$). There were increase in neutrophil counts and increase neutrophil to lymphocyte ratio (NLR) ($p<0.001$).

All Biochemical markers like IL-6, D-dimer, Serum Ferritin, Procalcitonin and C-reactive protein level were significantly increased in non survivors ($P<0.001$).

Conclusion: It is recommended to clinicians closely monitor routine blood counts and biomarkers for potential progression to critical illnesses and improve management of COVID-19 patients.
Keywords: COVID-19 patient,NLR ,

Abstract ID: 88

ASSESSMENT OF CD56 POSITIVE NATURAL KILLER CELLS IN ENLARGED LYMPH NODES OF BREAST CANCER PATIENTS- A PILOT STUDY

Presenting Author: **SIMRAN SHARMA**
Co – Authors: **RICHA GUPTA**
Affiliation: **UCMS, NEW DELHI**

Aim-Background: To estimate the number of NK cells in enlarged lymph nodes and tumor tissue using CD56 immunohistochemistry and comparing it with clinicopathological parameters in breast cancer.

Material-Methods: The study was conducted in the Department of Pathology, University College of Medical Sciences, New Delhi between January 2021 to August 2022 and was a prospective and cross-sectional study. After considering economical and time constraints, a sample size of 78 was taken. Inclusion criteria were histopathologically diagnosed Invasive ductal carcinoma of breast cases(IDC) with involved lymph nodes. Immunohistochemistry was performed on formalin-fixed paraffin-embedded sections followed by CD56+NK cell quantification.

Results: The age range of the cases was 40-50 years. Out of 78 patients, 41(52.6 %) patients were premenopausal and 37(47.4 %) patients were menopausal. The mean, median and range of NK cells/10 high power field in enlarged lymph nodes were 7.54±4.45,7(1-24) and 1-24 and in tumor were 3.3±1.65, 3(4-5) and 0-6. NK cells in tumor had a significant direct association with premenopausal status(p=0.01). NK cells in tumor and lymph node had a negative correlation with grade and stage of tumor (p=0.01 in each). NK cells were significantly higher in ER and PR-positive cases. The Luminal molecular subtype had the highest NK cell infiltration in tumor and lymph node, while Triple-negative subtype had the lowest NK cell infiltration. A negative correlation was seen between tumor size and NK cells while lymph node size showed a positive correlation. No significant association was found between NK cells and lymph node stage, lymph node status and lymphovascular invasion.

Conclusion: There is limited data on the role of tumor-infiltrating NK cells (NK -TILs) in breast cancer. This study concludes that NK-TILs are a significant prognostic factor of breast cancer and NK cell-based immunotherapy can be beneficial. More research encompassing wider demographics, histological and molecular types is needed.

Keywords: NK-TILs(Natural killer cells-tumor infiltrating lymphocytes),CD56,Invasive ductal carcinoma (IDC)breast, Immunotherapy

Abstract ID: 83

SPECTRUM OF RARE VARIANTS OF MENINGIOMA

Presenting Author: **SNEHA**
Co – Authors: **ANITA A M**
Affiliation: **SENIOR RESIDENT ESIC MEDICAL COLLEGE KALABURAGI**

Aim-Background: The present study was carried out to study spectrum of menigiomas on squash cytology and correlate with histopathology

Material-Methods: A total of 50 cases of CNS lesions were studied over a period of 2 years from 2016 to 2018. Intraoperative squash smears were prepared stained with Heamotoxylin & Eosin, Giemsa and Toludiene blue. Histopathological examination was carried out from remaining sample for confirmative diagnosis

Results: Out of 50 cases, neoplastic cases were 45 and non-neoplastic were 5 . Among neoplastic lesions, benign cases 29 and metastatic were 16. Among benign cases ,17 cases were of meningioma. Out of 17 cases, 5 were meningothelial meningioma and remaining 12 were rare variant. Rare variants of meningioma found were Psammomatous(4), Fibroblastic (2), Metaplastic(1) , Atypical(1),. Secretory(1), Rosette forming(1),clear cell (1), Angiomatoid meningioma(1)

Conclusion: Meningiomas display a wide diversity of histopathological appearances. The majority are grade I and hence curable by surgical resection. So accurate histopathological diagnosis and grading of these tumors are essential. Rare variants of this study are Ossified psammatous meningioma,Fibrobastic meningioma ,Ossified metaplastic meningioma,Secretory meningioma

Keywords: Central Nervous System Tumours, Squash cytology, Meningioma

Abstract ID: 129

ROLLER IMPRINT SMEAR WITH ULTRAFAST PAPANICOLAOU STAINING: AN INNOVATIVE TECHNIQUE FOR RAPID ON-SITE EVALUATION OF ENDOMETRIAL PATHOLOGIES.

Presenting Author: **SONAM SHARMA**
Co – Authors:
Affiliation: **DEPT. OF PATHOLOGY, KALPANA CHAWLA GOVERNMENT MEDICAL COLLEGE, KARNAL, HARYANA, INDIA**

Aim-Background: Introduction: Cytological assessment of the endometrium is still an underrated subject in diagnostic pathology despite its potential utility. This is owing to the lack of uniform results due to the variability in the endometrial sampling methods, smear quality and application of

cytoarchitectural criteria for interpretation. Nevertheless, a roller imprint smear (RIS) with ultrafast papanicolaou (UF-PAP) staining technique is presented herewith, which can be a novel approach in endometrial cytopathology.

Objectives: To determine the diagnostic utility and accuracy of RIS with UF-PAP staining technique for diagnosing endometrial pathologies in comparison to the histopathology.

Material-Methods: Endometrial aspiration biopsy was done using endometrial pipelle biopsy instrument in 50 women presenting with abnormal uterine bleeding. In each case, RIS was made and stained with UF-PAP stain. Then the endometrial fragments were fixed in 10% formalin for routine histopathology. Smear was examined and comment on its adequacy as well as tentative diagnosis was given to the operating gynecologist within 5 minutes. Depending upon this report, the gynecologist decided whether to repeat the biopsy or to go for an extensive surgery. Later, the detailed cytomorphological features were correlated with the histopathological findings.

Results: Adequate cellularity and cytological diagnosis was obtained in 43 cases by this technique in first attempt. A second attempt for endometrial aspiration biopsy was made in 7 cases. Sensitivity and specificity of this technique in determining the endometrial lesions was 71.48 and 100% respectively.

Conclusion: RIS with UF-PAP staining is an easy to perform, rapid, low cost and almost an accurate diagnostic technique which can be helpful in intra-operative decision making. It can also act as a boon for the remote, inaccessible, rural areas and resource-limited settings where frozen section and histopathology facilities are unavailable.

Keywords: Endometrial aspiration cytology, Pipelle, Roller imprint smear, Ultrafast PAP stain

Abstract ID: 96

FLOW CYTOMETRIC ANALYSIS OF PLATELET-LEUKOCYTE AGGREGATES AND HEMATOLOGICAL PARAMETERS IN PRE AND POST PLATELETPHERESIS DONORS.

Presenting Author: **SUBARNA SHARMA PINKY**
Co – Authors: **DR ANJALI SHARMA, DR MUKUL SINGH, DR SUNIL RANGA**
Affiliation: **POST GRADUATE RESIDENT**

Aim-Background: Single donor platelet apheresis (SDAP) has grown steadily due to its wide use in hematological malignancies and platelet-related diseases. SDAP procedure is usually well tolerated by donors and are preferred without any significant complications. However, post procedure safety issues regarding the formation of platelet leukocyte aggregates and changes in hematological values in the donor's blood circulation are not well assessed. We aimed to analyze platelet-leucocyte aggregates as well as changes in hematological parameters in pre and post-plateletpheresis donors by using different platelet surface antigens by evaluating the expression of CD41, CD42a and CD61 on flow cytometry.

Material-Methods: This observational study included 30 healthy single donor platelet apheresis donors volunteered in Department of Pathology and Transfusion Medicine, VMMC and Safdarjung Hospital, New Delhi. Donor selection was based on National Blood Transfusion Council Guidelines 2019. Pre and post-donation blood samples were collected and analyzed for changes in hematological parameters and Flow-cytometric evaluation of platelet-leukocyte aggregates by using CD41, CD 42a and CD61 antigens.

Results: Among the different platelet-leukocyte aggregates observed via flow cytometry, CD42a-positive platelet-neutrophil aggregates and CD61-positive platelet-neutrophil aggregates (PNA) were statistically significant p=0.001 and p=0.043 respectively. Among the hematological parameters, post donation platelet count(p=0.020) and absolute lymphocyte count(p=0.007) have shown significant reduction. Changes in other hematological parameters were not significant statistically.

Conclusion: In our study SDAP donors had a significant immediate post-procedure reduction of platelet count and absolute lymphocyte count and significant increase in PNA formation. However, it may predispose certain donors to pre-thrombotic complications. Monitoring of donor's hematological values for a longer period of time and more prospective studies are recommended to establish donor safety guidelines.

Keywords: Flow cytometry, platelet-leukocyte aggregates, hematological values

Abstract ID: 38

CORRELATION OF IMPRINT CYTOLOGY AND HISTOPATHOLOGY OF OROPHARYNGEAL AND ESOPHAGEAL LESIONS.

Presenting Author: **SUMIT KUMAR YADAV**
Co – Authors: **DR MALA PATIDAR**
Affiliation:

Aim-Background: To correlate the imprint cytology and histology finding of oropharyngeal and esophageal lesions.

Material-Methods: 41 cases of oropharyngeal and esophageal lesions were enrolled for the study who were subjected to both imprint cytology and biopsy. The patients were finally confirmed for malignant and benign lesion, considering the histopathology finding as gold standard (total 41 cases confirmed on biopsy and were further analyzed in the study)

Results: We found male predominance in our study with a male to female ratio of 2.1:1. On histological, most common lesions were malignant (53.7%) followed by benign (36.5%) and premalignant (9.8%).

Conclusion: In the study majority of the patients were male, with male: female ratio of 2.7:1. Patient age ranged from 02-70 years, with mean age 42.39 years. Maximum patients were > 40

years. The most common malignant lesion was squamous cell carcinoma while the common premalignant lesion was leucoplakia and benign lesion was chronic tonsillitis

Keywords: oropharyngeal and esophageal lesions, imprint cytology and histology, benign and malignant lesions

Abstract ID: 15

RADIOLOGICAL AND BIOCHEMICAL CORRELATION OF D-DIMER VALUE IN COVID-19 PATIENTS

Presenting Author: **SUNITA KUMARI**
Co – Authors: **DR. CHETNA JAIN (PROFESSOR)**
Affiliation: **JHALAWAR MEDICAL COLLEGE, JHALAWAR**

Aim-Background: To correlate D-Dimer value of COVID-19 pateints with their CT Severity Score and Biochemical values

Material-Methods: A total of 150 rtpcr positive adult patients who were followed up in the fever clinic because of COVID-19 pneumonia between March 2021and July 2021 were evaluated in the present study.

Both lungs were divided into five regions in line with their anatomical structures, and semiquantitative radiological scoring was made between 0 and 25 points according to the distribution of lesions in each region.The D-dimer level among CT score tertiles and the association of the D-dimer level with CT score were analyzed.

Results: CT severity score at entry point with D-Dimer level has significant correlation.[p<0.00001] D-Dimer level has significant association with duration of illness prior to hospitalization.[p<0.00001] Comorbidities have significant association with D-Dimer level. [p<0.00001] D-Dimer level has significant association with oxygen saturation.[p<0.00001].

Conclusion: D-Dimer has documented very crucial role in covid-19 pneumonia in predicting severity of illness and assessing response to treatment during hospitalization.

Keywords: Covid 19 , D-Dimer, CT score , pneumonia, pulmonary embolism

Abstract ID: 6

CLINICO-PATHOLOGICAL SPECTRUM OF AUTOIMMUNE BULLOUS DISEASE AND ROLE OF DIF IN THE DIAGNOSIS

Presenting Author: **SUSHANT SAHU**
Co – Authors: **ROOBINA KHAN, VEENA MAHESHWARI**
Affiliation: **JUNIOR RESIDENT**

Aim-Background: To classify various autoimmune vesiculobullous lesions according to findings of Direct Immunofluorescence and analyze the concordance between the clinical, histopathological, and direct immunofluorescence diagnosis

Material-Methods: 92 specimens of clinically suspected autoimmune bullous disease were included. Histopathological examination was done along with a DIF study for deposits of IgG, IgA, IgM, and C3

Results: Of the 92 cases, 75 were finally diagnosed as autoimmune bullous disease rest 17 were non-immune mediated. The most common entity was Pemphigus Vulgaris with 40 cases (53.35%), followed by Bullous Pemphigoid with 20 cases (26.6%). Out of 75 cases, 32 (42.6%) patients were male and 43 (57.3%) were female. There was an almost perfect agreement between the DIF diagnosis and the final diagnosis with $\kappa = 0.963$. DIF was positive in 39/40 (97.5%) cases of PV and 19/20 (95%) cases of BP. Kappa value for Clinical diagnosis(0.627)< HPE diagnosis (0.832)< DIF diagnosis(0.963)

Conclusion: A combination of clinical features, histopathology, and DIF usually gives the best results in the diagnosis of immune-mediated skin disease. DIF was found to be useful in making a diagnosis, in cases of AIBD like PV and BP.

Keywords: Autoimmune bullous disease, Pemphigus Vulgaris, Bullous Pemphigoid, Direct immunofluorescence

Abstract ID: 11

EVALUATION OF LIFE STYLE FACTORS, BODY MASS INDEX AND BIOIMPEDENCE BODY FAT ANALYSIS IN ADOLESCENTS

Presenting Author: **SUSHMA BJ**
Co – Authors: **DR. OMESH KHURANA1, DR. MITHILESH DEWANGAN*, MR. VIRAJ**
Affiliation: **NATIONAL INSTITUTE OF MEDICAL SCIENCES**

Aim-Background: The objectives of the study were to estimate the prevalence of overweight and obesity among adolescents and to study and correlate various life style factors like time spent in exercise, time spent in technology, household income, household education and weekly consumption of fast foods with BMI in these adolescents.

Material-Methods: written informed consent was obtained from each participant. The study protocol was approved Institutional Ethical Committee. In this cross-sectional study, we included 96 high school students of 13-17 years' age studying in Indu IT School Bhilai, Chhattisgarh. A pre-designed and pre-tested questionnaire was used to elicit the information for the study.

Results: In our study, we included a total of 96 adolescents aged between 13-17 years. Body mass index (BMI) was calculated. In our study, we found the prevalence of overweight is 15.6% and obesity 7.3% among Adolescents. Time spent in last 24 hours in exercise, parent's education is negatively correlated to BMI. Time spent in last 24 hours in technology, household income is positively correlated with BMI.

Conclusion: It is essential to maintain good BMI for a healthy lifestyle Our study shows that a large % of the student body has a BMI outside of the normal range the contributing factors include increased use of technology; lack of exercise, increased consumption of fast food. With the growth in household income, we need to keep the focus on maintaining a good lifestyle. Our study strongly recommends: No less than 2 hrs of exercise, No more than 2 hrs of technology time and 30 min of Yoga.

Keywords: obesity, adolescents, overweight, lifestyle factors, technology, household income and prevalence.

Abstract ID: 70

CLINICOPATHOLOGICAL PROFILE OF PATIENTS DIAGNOSED WITH MULTIPLE MYELOMA IN A TERTIARY CARE HOSPITAL.

Presenting Author: **SWATI RATHORE**
Co – Authors: **DR. ANITHA SEERVI , DR.MANJU RAGHAVA**
Affiliation: **1ST YEAR RESIDENT**

Aim-Background:
1) To evaluate the histological features of bone marrow aspiration and bone marrow trephine biopsy in multiple myeloma.
2) To evaluate morphological features with biochemical parameters.
3) To study the demographic profile.

Material-Methods:
Following data was included:
1) Demographic- Age/Sex/comorbidities, addictions (smoking/tobacco/alcohol), family history of malignancies.
2) Clinical symptoms (fatigue, bone pains, fractures, paraparesis, renal failure)
3) Basic lab parameters- CBC, PBF, Reticulocyte count, ESR, RFT, LFT, total protein-A/G, LDH, viral markers, electrolytes, calcium, creatinine.
4) Myeloma specific parameters- Bone marrow aspiration (special emphasis on morphology and enumeration of plasma cells), bone marrow biopsy (with IHC whenever required), Serum protein electrophoresis (quantification of M band), Immunofixation, Serum Free light chains, beta-2 microglobulin, Myeloma FISH panel, skeletal survey or PET scan.
5) Disease staging- as per ISS and RISS.
6) Treatment- first line treatment regimen, response to first line, adverse effects of therapy, relapse and subsequent lines of therapy.

Results: 54 patients were diagnosed during the study period, majority of them in the 6th decade. The male to female ratio was 1.7 :1. Most common clinical feature was generalized weakness (62.96%), followed by pallor (53.70%). Anemia was the most common hematological manifestation. 74.07% patients had 'M' band protein electrophoresis and 55.56% patients had urinary Bence Jones proteins.

Conclusion: Most patients were in 6th decade .Among 54 patients various clinical presentations observed were fever, back pain, pathological fracture in addition to anemia and generalized weakness. Multiple myeloma should be considered as a differential diagnosis in old age patients presenting with such complaints.

Keywords: Multiple myeloma, Protein electrophoresis, Bence Jones proteins

Abstract ID: 50

VARIOUS HISTOLOGICAL PATTERNS OF OVARIAN NEOPLASMS IN RURAL SETUP, CENTRAL INDIA

Presenting Author: **TANVI SHARMA**
Co – Authors: **DR. AKSHAY SURANA**
Affiliation:

Aim-Background: To study spectrum of ovarian malignancies among all cases of ovarian neoplasms. Material-Methods: This is a prospective study of 30 ovarian lesions at RD GARDI MEDICAL COLLEGE, UJJAIN, MADHYA PRADESH during a period of 1 year (August 2021- August 2022). Both neoplastic and non-neoplastic ovarian lesions were included and classified according to WHO classification of ovarian neoplasms 2020.

Results: Out of 30 cases studied, most were benign (66.66%), followed by malignant (30%) and borderline (3.33%). Age ranged from 18-70 years. Epithelial tumors were most common (53.33%), followed by Sex cord stromal tumors (16.66%), Germ cell tumors (16.66%) and mesenchymal tumors(3.33%) and other tumor like conditions (10%). Serous cystadenoma was most common benign tumor and Adult granulosa tumor and Serous papillary carcinoma were most common malignant tumor.

Conclusion: Ovary is common site of tumors in female genital tract and usually presents with a variety of clinicomorphological and histological features. The prognosis and varying therapeutic strategies for ovarian tumors necessitate an accurate pathological evaluation. It is concluded from this study that on morphological grounds, tumors originating from surface epithelium are the most common.

Keywords: Benign, histopathology, malignant, ovarian neoplasms

Abstract ID: 87

HISTOPATHOLOGICAL SPECTRUM OF ENDOSCOPIC GASTROINTESTINAL BIOPSIES : A STUDY IN TERTIARY CARE CENTER OF WESTERN INDIA.

Presenting Author: **TRIZA SHIROLE**
Co – Authors:
Affiliation: **MAHARASHTRA MEDICAL COUNCIL REG NO : 2019/04/2160**

Aim-Background: INTRODUCTION: A variety of benign and malignant lesions arise from the gastrointestinal system. Endoscopy has become a standard investigation for evaluation of symptoms as it provides direct access to the lesions without major surgical intervention. However, once the lesion is visualized, histopathological examination of the biopsy from the lesion is the gold standard for diagnosis.

OBJECTIVE: The objective of the study is to statistically determine the histopathological spectrum of gastrointestinal lesions and to put forth the usefulness of endoscopic biopsy for effective diagnosis and management.

Material-Methods: A total of 180 endoscopic biopsies were processed, microscopically examined and analyzed.

Results: Out of 180 biopsies, duodenal biopsies were most commonly encountered accounting to 52 (28.88%) cases, followed by colon (23.88%), gastric (21.11%), ileal (10%), rectal (9.44%) and esophageal (6.66%) biopsies. Male is to female ratio was 1.5:1. Mean age of presentation was 52.65 years, ranging from 8-88 years. 28 (15.55%) cases were neoplastic. Stomach was the most common site for malignancy, adenocarcinoma being the dominant histological type. Inflammatory conditions were more common in duodenum.

Conclusion: Therefore histopathological examination adjunct with endoscopy is of utmost significance for the final diagnosis and treatment of gastrointestinal lesions. It can prevent the unnecessary resection in benign cases and improve the prognosis in malignant cases with early diagnosis and prompt treatment.

Keywords: gastrointestinal lesions, endoscopic biopsy, gastrointestinal malignancy, adenocarcinoma.

Abstract ID: 89

GASTROINTESTINAL STROMAL TUMOR OR GASTRIC SCHWANNOMA : A DIAGNOSTIC DILEMMA .

Presenting Author: **TRIZA SHIROLE**
Co – Authors:
Affiliation: **MAHARASHTRA MEDICAL COUNCIL REG NO : 2019/04/2160**

Aim-Background: INTRODUCTION: Gastric schwannomas are rare mesenchymal tumors that arise from the nerve plexus of gut wall . They account for 0.2% of gastric tumors and are often preoperatively misdiagnosed as gastrointestinal stromal tumors.

OBJECTIVE: The objective of this case report is to bring forth Schwannoma as a rare differential diagnosis of submucosal spindle cell neoplasm of stomach and the importance of immunohistochemistry as the confirmatory test.

Material-Methods: Case report : We hereby report a rare case of 39 year old female who presented with complains of abdominal pain and was diagnosed to have a submucosal gastric mass ,possibly gastro-intestinal stromal tumor. Subtotal gastrectomy was performed and initial diagnosis of GIST was made which was later confirmed to be schwannoma on immunohistochemistry.

Results: Gastric schwannomas present asymptomatic but sometimes abdominal discomfort, dyspepsia and pain may be present . The various endoscopic and radiologic findings cannot differentiate between various mesenchymal tumors . Diagnosis is based on tissue histology and confirmed on immunohistochemistry . Previous cases reported by Apurva S.Shah et al and Sudhir Kumar Mohanty et al show similar findings as in our case.

Conclusion: Gastric schwannoma, though rare has a better prognosis than GIST. It is often misdiagnosed as GIST as both are submucosal spindle cell tumors. Therefore immunohistochemistry plays a crucial role in differentiating schwannoma from gastro-intestinal stromal tumors.
Keywords: gastric schwannoma , GIST , gastric spindle cell tumor .

Abstract ID: 105

LARYNGEAL AND RETROPHARYNGEAL SCHWANNOMAS: RARE CASE REPORTS

Presenting Author: **TRIZA SHIROLE**
Co – Authors:
Affiliation: **MAHARASHTRA MEDICAL COUNCIL REGISTRATION NO: 2019/04/2160**

Aim-Background: INTRODUCTION: Approximately 25–45% of schwannomas are found in the head-and-neck region, but rarely involve the retropharyngeal space. Schwannoma within larynx is uncommon and consists of only 0.1% to 1.5% of all benign laryngeal tumors.
OBJECTIVE : The aim is to highlight this rare entity as a diagnosis of retropharyngeal and laryngeal lesions for their appropriate management.

Material-Methods: we hereby report two rare cases of schwannoma.
CASE 1 : A 24 year old male presented with change in voice since 1 yr. Stroboscopy and CT scan were suggestive of a cystic lesion of right vocal fold . Postoperatively was diagnosed as spindle cell tumour, confirmed to be a schwannoma on immunohistochemistry.
CASE 2: A 20 year old male presented with difficulty in swallowing and breathing. CT scan showed a retropharyngeal lesion with features of abscess. Postoperatively was diagnosed as schwannoma on histopathological examination.

Results: According to previous studies the most common site of laryngeal schwannoma is aryepiglottic fold , in our study it was present at the right vocal fold and retropharyngeal space in other case. Presenting symptom was hoarseness of voice in laryngeal lesion and difficulty in swallowing in retropharyngeal space. Histopathologic examination is the gold standard for definitive diagnosis.

Conclusion: Though rare laryngeal and retropharyngeal schwannoma should be considered as a differential diagnosis and treated with complete excision as it may lead to airway obstruction and difficulty in swallowing . Despite various investigation modalities , definitive diagnosis can be made only on histopathogical examination .

Keywords: laryngeal schwannoma , retropharyngeal schwannoma , head and neck schwannoma.

Abstract ID: 36

CLINICOHEMATOGICAL CORRELATION OF RETICULOCYTE MATURATION PARAMETERS IN DIFFERENTIAL DIAGNOSIS OF MACROCYTIC ANEMIA.

Presenting Author: **VANDANA PAHADIYA**
Co – Authors: **DR. A. PANCHONIA, DR. RADHIKA RAI, DR. M. MITTAL**
Affiliation: **POST GRADUATE RESIDENT MGMMC UNDERJABALPUR UNIVERSITY**

Aim-Background: The aim of the study was to test the reticulocyte parameters in differential diagnosis in macrocytic anemia and spectrum of macrocytic anemia.

Material-Methods: A Study was carried out on 60 blood sample of patients attending MGM Medical college and M.Y. Hospital .The patients below 18 yrs and Pregnant women were excluded. All study subjects underwent detailed clinical , hematological(CBC , Peripheral smear, Retic count, Immature reticulocyte fraction, Absolute retic count, Mean reticulocyte volume) and automated examination.

Results: The study included 60 patients (30 cases and 30 controls). Patients diagnosed with macrocytic anemia(MA) =10, with MDS =05 and Non megaloblastic macrocytic anemia(NMMA) = 15. Macrocytic anemia due to ineffective erythropoiesis showed reticulocytes to a more immature fraction also they have a larger volume and a greater RNA content than healthy controls.
Conclusion: The result of our study show that IRF can be used in screening of macrocytic anemia (MA) and Non megaloblastic macrocytic anemia (NMMA) but has limited use in MDS and not able to replace bone marrow aspiration for confirmation.

Keywords: Reticulocytes, Macrocytic anemia,Non megaloblastic maacrocytic anemia

Abstract ID: 119

MORPHOLOGICAL SPECTRUM OF ENDOMETRIAL PATHOLOGY IN MIDDLE-AGED WOMEN WITH ATYPICAL UTERINE BLEEDING

Presenting Author: **ZEESHAN IQBAL**
Co – Authors: **SUJATA JETLEY, SAFIA RANA, ZEEBA SHAMIM JAIRAJPURI**
Affiliation: **HIMSR**

Aim-Background: A study was undertaken to determine the types and frequencies of endometrial pathologies in perimenopausal women presenting with abnormal uterine bleeding (AUB) who underwent endometrial sampling using the PALM- COEIN (polyp; adenomyosis, leiomyoma; malignancy and hyperplasia; coagulopathy; ovulatory dysfunction; endometrial; iatrogenic; and not yet classified) classification system for AUB which is consistent and universally accepted

Material-Methods: This was a retrospective age-specific comparative analysis of endometrial biopsy of 219 perimenopausal women presenting with AUB during a 4-year period. All endometrial biopsies and curettages of women with abnormal uterine bleeding were retrieved and reviewed by trained pathologists, the pattern of uterine histopathological changes were identified and

classified using the PALM–COEIN classification system.

Results: Functional causes accounted for majority of the diagnosis. Secretory endometrium was the most common cause in 71 cases (32.4%) followed by proliferative endometrium (67 cases). (30.5%) Disordered proliferative endometrium was seen in 15 cases (6.8%) and luteal phase defects in three cases (1.3%) Endometrial hyperplasia was present in 24 (10.9%) patients and endometritis was diagnosed in 20 (9.1%) cases out of which two cases were of tubercular aetiology while other 18 showed features of non-specific chronic endometritis.. Endometrial polyps were seen in six (2.7%) cases. Pregnancy-related bleeding was seen in 3 cases while in six cases (2.7%) features of exogenous hormone therapy was seen.

Conclusion: AUB in perimenopausal women is most commonly dysfunctional in origin. A significant number of cases reveal the underlying organic cause thus emphasising the importance of endometrial curettage and biopsy for timely diagnosis of preneoplasia and malignancy. This classification standardises the nomenclature to describe aetiology and severity of AUB and helps the clinicians, researchers and the patients for meaningful communication, clinical care and research

Keywords: Atypical, endometrium, bleeding, hyperplasia, PALM-COEIN

Abstract ID: 91

CLINICAL PROFILE OF PRESUMPTIVE LYMPH NODE TUBERCULOSIS IN CHILDREN AND CORRELATION OF FINE NEEDLE ASPIRATION SMEAR, CB-NAAT AND CULTURE

Presenting Author: **ZOHRA NAHEED HASHMI**
Co – Authors: **SWARNA SINGH, KAFIL AKHTAR, FARZANA K. BEIG**
Affiliation: **1-JUNIOR RESIDENT, 2-PROFESSOR,DEPARTMENT OF PATHOLOGY, 3-PROFESSSOR, DEPARTMENT OF PAEDIATRICS,JNMC, AMU, ALIGARH, UTTAR PRADESH, INDIA.**

Aim-Background: Tuberculous lymphadenitis is one of the most frequent presentations of extrapulmonary tuberculosis accounting for 20-40% of the cases. This study aims to study the clinical profile of lymph node tuberculosis in children and to compare CB-NAAT with clinical, cytomorphological, smear and culture positivity in cases of presumptive tubercular cervical lymphadenopathy.

Material-Methods: The present study is a prospective observational study conducted on 48 patients of the age group 3months to 18 years. A detailed clinical history and examination was done and fine needle aspirates and blood samples were collected and subjected to cytological evaluation, ZN staining, culture and CB-NAAT.

Results: AFB positivity was observed in 3(6.3%) cases while FNAC showed cytomorphological

features of tuberculosis in 22(45.8%) cases while 24(50%) cases had features suggestive of reactive lymphadenitis. Out of 22 patients positive for tuberculosis, 14(93.3%) were positive for mycobacterium tuberculosis via CB-NAAT and 2 were positive in reactive lymphadenitis group. Sensitivity, specificity, positive predictive value and negative predictive value of FNAC was 87.5%, 75%, 63.6% and 92.3% respectively. Culture on LJ medium was positive in 8(16.6%) cases. All the culture positive cases were positive via CB-NAAT. 16(33.3%) cases were positive by CB-NAAT via PCR. 42.8% PCR positive patients showed epithelioid granuloma with caseous necrosis in the cytology.

Conclusion: Culture is the gold standard investigation and PCR is the most sensitive method. However, combination of various tests helps in diagnosing tuberculosis early and accurately as FNAC alone may lead to false negative results.

Keywords: Extrapulomonary tuberculosis, Cartridge Based Nucleic Acid Amplification Test (CB-NAAT)

Abstract ID: 90

A COMPARATIVE STUDY OF TRANSFUSION TRANSMITTED INFECTIONS AMONG VOLUNTARY BLOOD DONORS AND REPLACEMENT DONORS

Presenting Author: **ZOHRA SIDDIQUI**
Co – Authors: **DR.SADIA AFREEN, DR.SARAH IRFAN, DR.SUHAILUR REHMAN , DR.S.H ARIF**
Affiliation: **ALIGARH MUSLIM UNIVERSITY**

Aim-Background: To find out prevalence of transfusion transmitted infections(HIV,HCV, HBsAg, Syphilis, Malaria) among voluntary blood donors and replacement donors

Material-Methods: This study is 1 year retrospective study conducted at Blood bank of JNMCH, AMU, Aligarh. A total of 28543 donors were analyzed for prevalence of transfusion transmitted infections, of which 7521 were replacement donors and 21022 were voluntary donors. Chi square test was used to analyze the result.

Results: Prevalence of transfusion transmitted infections was significantly higher among replacement donors as compared to voluntary donors.

Conclusion: As transfusion transmitted infections are higher among replacement donors as compared to voluntary donors; More and more voluntary donations must be encouraged.

Keywords: Transfusion transmitted infections, Prevalence, Voluntary blood donors, Replacement donors,

POSER PRESENTATIONS

Abstract ID: 107

HEMATOLOGICAL PROFILE OF ACUTE FEBRILE ILLNESS

Presenting Author: **NITIN CHANDWANI**
Co – Authors: **DR. ANOOP NIGAM**
Affiliation:

Aim-Background:
1. To investigate the hematological and clinical profile of patients of Acute Febrile Illness over a period of one and half year (November 2019 to June 2021).
2. To compare and correlate the hematological and clinical profile of patients of Acute Febrile Illness.
3. To evaluate the causes of fever in infectious disease.

Material-Methods:
Malaria: Detection of malarial parasites done by using Rapid visual test from Viola Diagnostics Systems.

Dengue: Detection of NS1/IgM/IgG done using Rapid visual test from J. Mitra & Co. Pvt. Ltd.
Typhoid: Salmonella antibodies are detected by slide agglutination using Widal Antigen Set from Tulip Diagnostics (P) Ltd.

UTI: Isolation of uropathogens performed by surface streak procedure on both Blood Agar and Mac-Conkey Agar from Hi-media, India.
CBC analysis: Complete hemogram is done on automated hematology analyser SYSMEX XS- 800.

Leishman stained slides of the study population were also studied to look for peripheral smear findings.

Results: A total of 385 patients with AFI were enrolled in our study, majority i.e. 51.4% of study population were diagnosed with UTI, followed by 34.5% with typhoid, with dengue i.e. 11.9% and least is 2.1% with malaria. Majority of the cases were recorded during monsoon season.
There is male predominance with 53.0% males and 47.0% females. The M:F ratio is 1.12:1.
Majority of the patients were between 21-30 years (41.0%), followed by 31-40 years(17.4%). Youngest patient was18 years old while the oldest was 70 years

Conclusion: In order to dissect and correctly diagnose Acute febrile illnesses, it is imperative to understand various etiologies responsible for AFI. To diagnose the root cause of AFI, a stepwise approach with laboratory tests is required.

Keywords: Acute febrile illness, peripheral smear findings

Abstract ID: 74

PREVALANCE OF TRANSFUSION TRANSMITTED DISEASE IN BLOOD DONORS

Presenting Author: **SHIVANI SWARNKAR**
Co – Authors: **DR. YOGITA SINGH TOMAR**
Affiliation:

Aim-Background: To find out prevalance of HIV, HBsAG, VDRL, HCV reactive cases in different categories of blood donors

Material-Methods: Retrospective study jan 2020-jan 2022 7439 blood donors wereanalyzed Test was carried out by ELISA method

Results: out of 7439 cases, prevalance was154 Positivity for HBsAg was 88, HIV 03, HCV 06, and for VDRL was 57

Conclusion: prevalace of TTD decrease with the improvement of generation of kits for the test and stringent criterias used in testing.

Keywords: Transfusion transmitted disease, HIV, HBsAg, VDRL, HCV reactive cases

Abstract ID: 101

LOW –GRADE APPENDICEAL MUCIOUS NEOPLASM :INCIDENTAL FINDING IN A CASE OF INTUSSESCEPTION

Presenting Author: **SUMIT KUMAR YADAV**
Co – Authors: **DR. AKSHAY SURANA**
Affiliation:

Aim-Background: Primary neoplasm of the appendix is often diagnosed incidentally after an appendectomy. Appendix malignant mucinous neoplasms are a rare and mostly asymptomatic disease.

Material-Methods: 71 year old female who presented with chief complain of pain in abdomen and lump. The lump was excised and lump was sent for HPE in pathology department. H & E stained slide were studied.

Results: Section from appendix shows flattened mucosal lining with few papillae, loss of crypts and lymphoid follicles with effected muscularis mucosae. The mucosal epithelial show low grade atypia. The lumen contains mucin and inflammatory cells. The proximal portion of appendix including its base which has intussuscepted into the adjacent caecum shows hyperplastic mucosa with crypts

and large quantity of extracellular mucin which has bluntly dissected into the submucosa from distal part of appendix

Conclusion: Distal part of appendix shows low grade appendiceal mucinous neoplasm with mucocele in proximal part of appendix resulting in its intussesception into the adjacent caecum.
Keywords: Appendix, Low –Grade Appendiceal Mucious Neoplasm, H & E stained slide

Abstract ID: 104

ANGIONEUROFIBROMA- NEW HISTOLOGICAL SUBTYPE OF NEUROFIBROMA

Presenting Author: **ANNAPOORNESHWARI R**
Co – Authors: **DR. DAYANANDA S BILIGI**
Affiliation:

Aim-Background: Cutaneous neurofibromas are benign, unencapsulated dermal tumors, characterized by proliferation of spindle cells in a myxoid stroma. Histopathological variants of neurofibroma include classic, cellular, myxoid, hyalinized, epithelioid, plexiform, diffuse, pigmented, granular cell, and pacinian. saxer-Sekulic et al reported a new variant- angio neurofibroma. Subsequently, some other variants such as dendritic cell neurofibroma with pseudorosettes and lipomatous neurofibroma have been reported. As per the literature, only 6 cases of angio neurofibroma were reported and here we are reporting 7th case.

Material-Methods: The biopsy specimen was fixed in formalin, following routine processing, tissue embedded in paraffin. 5 micron thick sections were cut and stained with haematoxylin-eosin. immunohistochemistry was performed for S-100 and CD34.

Results: On histopathological examination, the epidermis appears near normal. Dermis shows an ill defined lesion composed of proliferating S-100 spindle cells with wavy nucleus and moderate eosinophilic cytoplasm, the stroma shows 70-75 CD34 blood vessels/ 10 HPF and sparse perivascular inflammation.

Conclusion: After extensive literature search, we conclude that this is the 7th reported case of Angio neurofibroma. Hence the study done.

Keywords: Neurofibroma, Angioneurofibroma, S-100, CD34

Abstract ID: 5

PREVALENCE AND PREDICTORS OF VASOVAGAL ADVERSE REACTIONS AMONGST WHOLE BLOOD DONORS AT REGIONAL BLOOD TRANSFUSION CENTRE: A 4 YEARS EXPERIENCE

Presenting Author: **ANJU KHAIRWA**
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Affiliation: **1DEPARTMENTS OF PATHOLOGY, UNIVERSITY COLLEGE OF MEDICAL SCIENCES & GTB HOSPITAL, DELHI- 110095**

Aim-Background: The aim of the current study is to evaluate the prevalence, types, and predictors of adverse blood donor reactions at the Regional Blood Transfusion Centre (RBTC).

Material-Methods: Data were collected retrospectively from 2018 to 2021 by the Donor-Vigil software of RBTC.

Results: The study included 99677 donors. The prevalence of adverse donor reactions (ADRs) was 0.084%. The mean- SD of age was 30.1- 8.0 years and 65.69- 8.46 kg of weight of donors with adverse reactions. Most of ADRs were systemic (98%) and local (2%) noticed. Severe vasovagal reactions (VVR) were noticed in 54.76% and mild VVR in 45.24% of donors. ADRs were noticed in 92.8% of first-time donors, 7.1% of repeat donors, 21.43% of voluntary donors and 78.57% of replacement donors. Generalized weakness (mild VVR) in 59.32% and dizziness (severe VVR) in (23.9%) of donors were noticed. Mostly severe VVR was noticed during blood donation (84.52%). Severe VVR were significantly associated with weight (>65kg), low systolic blood pressure (BP) (94.7 - 22), high diastolic BP (94.7 - 22), the timing of reactions in (22.4 - 17.9) minutes, and during blood donation in comparison to mild VVR.

Conclusion: We found a very less prevalence (0.084%) of vasovagal ADRs. Severe VVR is mostly noted in donors with significant associations of predictors (high weight, low systolic BP, high diastolic BP, young age group). We recommended continuing to upgrade the donor vigilance programme to improve blood bank services.

Keywords: Adverse donor reaction, Vasovagal reaction, Blood donor, severe, Haemovigilance

Abstract ID: 78

METAPLASTIC CARCINOMA- A RARE ENTITY

Presenting Author: **ANUJA BHARGAVA**
Co – Authors: **DR. AKSHAY SURANA**
Affiliation:

Aim-Background: To study histopathological findings of a rare case of metaplastic carcinoma.

Material-Methods: A 45 year old female came with complaint of painful lump in right breast since 6 months. Modified radical mastectomy was done and was sent to Histopathology depart ment of RD GARDI MEDICAL COLLEGE, Ujjain, MP. H&E slides were studied.

Results: Metaplastic carcinoma of breast is rare type of Invasive breast carcinoma. They usually show aggresive behaviour with poor response to neoadjuvant therapy. They are characterized by presence of squamous and mesenchymal differentiation of neoplastic breast epithelium.

Conclusion: Metaplastic carcinoma of breast is a rare form of breast cancer with diagnostic and therapeutic challenges.

Keywords: metaplastic, rare, therapeutic challenges, carcinoma

Abstract ID: 66

RECURRENCE OF AMELOBLASTOMA OF MANDIBLE- A CASE REPORT

Presenting Author: **TANVI SHARMA**
Co – Authors: **DR. AKSHAY SURANA**
Affiliation:

Aim-Background: To study clinicopathological findings of Ameloblastoma of Mandible which presented as recurrence.

Material-Methods: A 38 year old lady came to department of ENT IN RD GARDI MEDICAL COLLEGE with swelling in left lower gingiva. The swelling was excised and tumor was sent for HPE in Pathology department. H&E stained slides were studied.

Results: Ameloblastoma is the most common benign epithelial odontogenic tumor. It is a locally aggressive neoplasm that arises from remnants of dental lamina. The chief histological variants of ameloblastoma are follicular and plexiform types. They commonly occur in the mandible most often in molar ramus area.

Conclusion: Ameloblastoma remains a common epithelial odontogenic tumor with a high rate of recurrence. So complete excision is required for proper management.

Keywords: Ameloblastoma, benign, reccurence, mandible

Abstract ID: 63

SYNCHRONOUS PRESENTATION OF PERIAMPULLARY CARCINOMA WITH HODGKIN'S LYMPHOMA: A CASE REPORT

Presenting Author: **SYEDA IQRA USMAN**
Co – Authors: **DR. NEDA AHSAN, DR. NUZRA FAZAL, DR. KAFIL AKHTAR**
Affiliation: **ALIGARH MUSLIM UNIVERSITY**

Aim-Background: To assess and analyze the synchronous presentation of periampullary carcinoma with Hodgkin's lymphoma

Material-Methods: USG and Ct of lesions were performed. FNAC of involved lymph node was done. Resected lymph node and whipple's specimen were grossed and processed, stained with H&E and immunohistochemical stains and examined.

Results: USG and Ct showed a 7x3.5x1.8cm mass in periampullary region with dilatation of CBD. FNA showed RS cells. On histopathological and IHC examination diagnosis of periampullary carcinoma and Hodgkin's lymphoma was made.

Conclusion: This case is rare synchronous presentation of two entities and gives an insight regarding presentation and diagnosis. This is by far to the best of our knowledge the first case of such presentation

Keywords: Hodgkin's lymphoma, Periampullary carcinoma, RS cell

Abstract ID: 65

RENAL MUCORMYCOSIS IN 43YEAR OLD IMMUNOCOMPETENT FEMALE.

Presenting Author: **ZOHRA SIDDIQUI**
Co – Authors: **DR.ASFA SHAMS, DR.RUQUIYA AFROSE, DR.S.H ARIF, DR.S.A.A RIZVI**
Affiliation: **ALIGARH MUSLIM UNIVERSITY**

Aim-Background: To assess and analyse the Surgically resected nephrectomy specimen in 43 year old female.

Material-Methods: The resected nephrectomy specimen was grossed and histopathologically preserved , stained with H and E and PAS stains and microscopically examined.

Results: Ultrasonography followed by Surgical nephrectomy was done.On histopathology and microscopy it was diagnosed as a case of renal mucormycosis.

Conclusion: Early diagnosis and prompt and aggressive management is essential to ensure disease free survival and prevent risk of occurence.

Keywords: Renal Mucormycosis, Pyelonephritis, Psoas, Sepsis, Disseminated intravascular coagulopathy.

Abstract ID: 21

CUTANEOUS MALAKOPLAKIA IN PERIORBITAL REGION: AN UNUSUAL SITE OF PRESENTATION

Presenting Author: **SNEHA P**
Co – Authors: **DAYANADA S BILIGI**
Affiliation: **BANGALORE MEDICAL COLLEGE AND RESEARCH INSTITUTE**

Aim-Background: Malakoplakia is rare histiocytic disease, more commonly in the genitourinary tract. Cutaneous malakoplakia in the periorbital region are extremely rare. Its rarity and nonspecific presentation, makes it challenging for diagnosis

Material-Methods: We report a case of 58 years old female patient presented with complaints of slow growing progressive lesions in the right periorbital region over the past 10 years. On examination grey brown, non itchy plaque noted in the right medial canthus measuring 1.2cms in diameter. There was no history of diabetes or any other chronic debilitating illness. Skin biopsy of the lesion was performed and sent for histopathological examination. The histopathological examination of the biopsy tissue showed collection of sheets of lymphocytes, foamy histiocytes and numerous psammomatous calcification. Epidermis appeared near normal. PAS (Periodic Acid Schiff) stained sections revealed PAS positive intracytoplasmic michaelis gutman bodies.

Results: The cutaneous form of malakoplakia is a less prevalent presentation of the disease and most commonly occurs in the anogenital region. However periorbital location is extremely rare. Has a varied clinical presentation varies from papules, plaques, nodules, abscess with or without fluctuation, fistula to ulcer and polypoidal masses which often misleads a clinician towards suspicious of a tumor and other granulomatous infections. The defect in the bactericidal capacity of macrophages leads to accumulation of partially degraded bacteria in monocytes and macrophages. Subsequent deposition of calcium and iron results in intracellular and extracellular basophilic concentric lamellated inclusion which are pathognomonic of Michaelis-Gutman bodies. Can be highlighted by Periodic acid Schiff stain, Von kossa and perls stain.

Conclusion: Cutaneous malakoplakia is a rare entity. Because of its rarity and non specific presentation makes it a challenging diagnosis. This chronic granulomatous disorder should be considered in the differential diagnosis of, plaques, nodules, ulcers that are refractory to the course of antibiotics.

Keywords: Immunocompetent, Cutaneous malakoplakia

Abstract ID: 35

HISTOPATHOLOGICAL AND CLINICAL COMPARISON OF HAILEY HAILEY DISEASE AND DARIER DISEASE.

Presenting Author: **MANISH SHUKLA**
Co – Authors: **RISHI DIWAN , RICHA SHARMA , BRAJENDRA SHAKYAWAL.**
Affiliation: **DEPARTMENT OF PATHOLOGY , JHALAWAR MEDICAL COLLEGE, JHALAWAR (RAJASTHAN).**

Aim-Background: To study clinical and histopathological features of Hailey Hailey disease and Darier disease.

Material-Methods: We selected one patient of Hailey Hailey disease whose age 52year female and another patient of Darier disease whose age 45year male in our tertiary care center (JMC, Jhalawar). Detailed clinical and histopathological evaluation was done in both patients.

Results:
*Hailey Hailey disease -
Microscopic examination shows subcorneal blister with neutrophilic deposits . There is suprabasal blister showing acantholytic cells (Dilapidated brick wall) with elongated papilla protruding into blister. Upper dermis shows predominant lymphocytic infiltration along with few neutrophils.

*Darier disease-
Microscopic examination shows orthokeratosis , papillamatoid , irregular acanthous follicular plugging . Predominately granular layer. There are supra basilar clefting with acantholytic cells and dyskeratotic cells (corps and ronds) in the lacunae. Thick orthokeratotic plug with parakeratosis (grain cells) present in the stratum corneum.

Conclusion: Our study shows classical clinical and histopathological features of both the diseases. Hailey Hailey disease and Darier disease both are autosomal dominant disorders , both shows acantholysis and dyskeratosis but Hailey Hailey disease show more acantholysis and less dyskeratosis in comparison to Darier disease. These diseases have similar etiopathology but clinically , genetically and histopathologically they are distinct entities.

Keywords: Autosomal dominant disorders , Hailey Hailey disease, Darier disease, Dilapidated brick wall , Corps and ronds , Grain cells.

Abstract ID: 100

MALIGNANT MELANOMA OF THE NASAL CAVITY: A RARE CASE REPORT.

Presenting Author: **ATUL MOHANRAO PAWAR**
Co – Authors: **DR. RAJENDRA CHAUDHARI, DR. JYOTI SONAWANE, DR. PREETI BAJAJ**
Affiliation: **DEPARTMENT OF PATHOLOGY, DRVPMCH&RC, NASHIK**

Aim-Background: INTRODUCTION: Malignant Melanoma of nasal cavity is an extremely rare tumor constituting only 1% of all the melanomas and is more aggressive than its cutaneous counterpart. Primary malignant melanoma within the nasal cavity arises from the melanocytes located in the mucous membrane.

Material-Methods: CASE REPORT: A 71-year-old female presented with a 5-month history of right nasal obstruction, epistaxis and unilateral rhinorrhea. Based on CT scan imaging, brush cytology and histopathological examination of the excision biopsy, a diagnosis of malignant melanoma was made which was later confirmed with S100 and HMB 45 immunohistochemical markers.

Results: DISCUSSION: Sino-nasal mucosal melanomas comprise 1% of all melanomas and about 4% of all sino-nasal tumors. Differentiating mucosal from cutaneous origin and excluding metastasis to the sinonasal region are important for staging and prognosis. Metastatic disease (stage IV) and advanced patient age are the most important prognostic factors. Cutaneous melanoma prognostic factors (e.g. Clark level of invasion and Breslow tumor thickness) do not apply in such cases.

Conclusion: Malignant melanoma of the nose is a rare tumor, with aggressive behavior and poor prognosis. Rarity of this lesion warrants its mention and thus emphasizes the importance of considering malignant melanoma among the differential diagnosis of the tumors of nasal cavity and paranasal sinuses.

Keywords: Melanoma,S100,HMB 45

Abstract ID: 24

PREVALENCE AND TRENDS OF TRANSFUSION TRANSMITTED INFECTIONS AMONG BLOOD DONORS IN BLOOD BANK IN JHALAWAR MEDICAL COLLEGE, JHALAWAR.

Presenting Author: **AMIT SHARMA**
Co – Authors: **DR. SUMIT PRAKASH RATHORE**
Affiliation: **DEPARTMENT OF PATHOLOGY, JHALAWAR MEDICAL COLLEGE, JHALAWAR (RAJASTHAN)**

Aim-Background: To assess the prevalence and trend of TTIs among the blood donors in the Blood Bank of Jhalawar Medical College, Jhalawar.
Material-Methods:
Retrospective study. | Blood donors age group 18 to 65 years.
Time period January 2019 to September 2022.

Results: Out of 56773 donors over all sero-prevalence was 1162 (0.02%) donors. HIV 83 cases(0.001%). HBsAg 853 cases(0.015%). HCV 82 cases(0.0009%). Syphilis 133 cases(0.002%). Malaria 11 cases(0.0002%)

Conclusion: The TTIs prevalence rate is low. It can be further decrease by proper donor screening and sensitive screening tests.

Keywords: Transfusion Transmitted infections, Retrospective study, sero-prevalence, screening test

Abstract ID: 25

CYTO-HISTOPATHOLOGICAL CORRELATION IN DIAGNOSIS OF CAROTID BODY PARAGANGLIOMA

Presenting Author: **NEETU YADAV**
Co – Authors: **RISHI DIWAN**
Affiliation: **DEPARTMENT OF PATHOLOGY, JHALAWAR MEDICAL COLLEGE, JHALAWAR**

Aim-Background: To study the cytological and histopathological features of carotid body paraganglioma and their correlation.

Material-Methods: A prospective case study was done on a 41 year old male patient who presented with cervical swelling.Fine needle aspiration cytology was done and cytological features were studied. Later, its excisional biopsy was received in our department and histopathological features were studied.

Results: In fine needle aspiration cytology, the aspirate was hemorrhagic showing clusters of atypical cells forming follicular pattern with prominent anisokaryosis and speckled chromatin.
Multiple sections examined from the excised cervical swelling showed tumour tissue which is

partially capsulated present in nest(zellballen pattern) surrounded by fibrovascular stroma.The cells were haphazardly arranged predominantly having salt and peppery chromatin, nuclear enlargement at few places with surrounding eosinophilic granular cytoplasm.Mitotic activity approximately 1/HPF was appreciated.

Conclusion: Fine needle aspiration cytology of this patient was suggestive of vascular lesion with atypia suspicious of paraganglioma which was further confirmed (as paraganglioma) on histopathology. Therefore, fine needle aspiration cytology coupled with histopathology can really serve as a diagnostic modality for carotid body paraganglioma.

Keywords: Paraganglioma, anisokaryosis, zellballen

Abstract ID: 26

HISTOPATHOLOGY OF SIGNET RING CELL CARCINOMA OF INTESTINE WITH CLINICO-RADIOLOGICAL CORRELATION.

Presenting Author: **SHYNA SACHDEVA**
Co – Authors: **RICHA SHARMA**
Affiliation: **DEPARTMENT OF PATHOLOGY, JHALAWAR MEDICAL COLLEGE, JHALAWAR**

Aim-Background: To study the histopathological features, clinical and radiological presentation of signet ring cell carcinoma of intestine-a rare histological type of colorectal carcinoma with poor prognosis.

Material-Methods: A 59 year old female was reviewed whose resected loop of intestine was received in histopathology section of our department.A case study was done by taking clinical history, reviewing radiological investigation and by doing histopathological examination.

Results: Multiple sections examined from resected loop of intestine revealed mucosal wall with sheets of tumour cells in lamina propria. Tumour cells were dyscohesive and diffusely infiltrating through all the layers of intestine and also reaching into the mesocolonic fat.The tumour cells were signet ring type having intracellular mucin pushing nucleus to the periphery and making more than 50 percent of tumour volume.There were also extracellular mucin pools.Lymphovascular invasion was also present.Biopsy from the resected lymph node which is positive for metastasis shows calcification.

Conclusion: This patient presented with prolonged gastrointestinal symptoms like pain abdomen, constipation and weight loss.Radiological investigations show features of bowel obstruction suggestive of ileocaecal with colonic tuberculosis .But histopathology revealed high grade signet ring cell carcinoma with lymphovascular invasion and lymph node metastasis.This case emphasises the importance of histopathology in early and accurate diagnosis of signet ring cell carcinoma in patients presenting with vague symptoms of bowel obstruction.

Keywords: signet ring,dyscohesive, mucin, metastasis

Abstract ID: 126

A DOUBLE WHAMMY: BASALOID SQUAMOUS CELL CARCINOMA CERVIX PRESENTING AS UTERINE PERFORATION.

Presenting Author: **SONAM SHARMA**
Co – Authors:
Affiliation: **DEPT. OF PATHOLOGY, KALPANA CHAWLA GOVERNMENT MEDICAL COLLEGE, KARNAL, HARYANA, INDIA**

Aim-Background:
Introduction : Basaloid squamous cell carcinoma of the uterine cervix is an extremely rare and aggressive malignancy accounting to 0.5% of all the cervical carcinomas. It has varied clinicopathological features, higher metastatic potential and poorer prognosis in comparison to the classical cervical squamous cell carcinoma.

Material-Methods:
Case Presentation : A 54-year old female presented to the emergency department with the chief complaints of pain abdomen and vomiting since 1 week. Ultrasound abdomen suggested the possibility of subacute intestinal obstruction, for which exploratory laparotomy was performed. Intraoperatively, pyometra and a uterine perforation involving the fundus were identified, which prompted a subtotal hysterectomy.

A provisional clinical diagnosis of carcinoma cervix stage IIIB was made, and specimen was sent for histopathological examination. Grossly, subtotal hysterectomy specimen measured 6 x 3.5 x 2 cm with a perforation at the fundus measuring 1.5 cm x 1 cm. On extensive serial sectioning, an infiltrative grey-white cervical growth measuring 1.2 cm x 0.7 cm was identified. The microscopic findings revealed well defined nests of immature basaloid cells with peripheral palisading of pleomorphic, hyperchromatic nuclei, scant cytoplasm and brisk mitoses.

Comedo-like necrosis and focal keratinization was also visualised. On the basis of this histomorphology, a final diagnosis of basaloid squamous cell carcinoma of the uterine cervix was rendered. However, postoperatively on day 2, the patient's condition deteriorated rapidly and finally she succumbed to sudden cardiopulmonary arrest.

Results:
Conclusion : Basaloid squamous cell carcinoma of the uterine cervix should always be considered among differentials while dealing with cervical cancer cases with atypical presentations.

Keywords: Basaloid squamous cell carcinoma, Uterine cervix, Uterine perforation

Abstract ID: 127

MULTIPLE SOLITARY PLASMACYTOMA: A RARE PERPLEXING ENTITY DIAGNOSED BY FLOW CYTOMETRIC EVALUATION OF FINE NEEDLE ASPIRATE.

Presenting Author: **SONAM SHARMA**
Co – Authors:
Affiliation: **DEPT. OF PATHOLOGY, KALPANA CHAWLA GOVERNMENT MEDICAL COLLEGE, KARNAL, HARYANA, INDIA.**

Aim-Background:
Introduction: Plasma cell disorders (PCD) have a wide spectrum and can present with a myriad of presentations. Multiple Solitary Plasmacytoma (MSP) is a very rare PCD with only few cases reported in the literature. There is limited use of immunophenotypic studies and also paucity of data in regard to utilization of fine needle aspirate (FNA) in flow cytometry for diagnosing such cases.

Material-Methods:
Case Presentation : A 50 year old man presented with multiple body swellings over a period of 4 months. Radiographs revealed multiple lytic lesions with soft tissue component. FNAC from all the swellings showed predominantly dispersed mature and immature plasma cells. This FNA was also run on multiparametric flow cytometer for analysis which revealed characteristic CD-138, CD-38 positive expression of plasma cells with monoclonal Kappa strong positivity. Biochemical investigations were within normal limits. Bone marrow aspiration & biopsy showed normal haematopoietic elements with 1-2% of plasma cells. Trucut biopsy from one of the lesion showed numerous plasma cells which were Kappa positive on IHC. Based on all the findings, a final diagnosis of MSP was made. The patient was started on radiotherapy followed by 3 cycles of chemotherapy. The lesions regressed within next 3 months and the patient is still under follow up.

Results:
Conclusion: MSP is an extremely rare type of PCD and this case highlights the utility of FNA in flow cytometry as this under-utilized combination of techniques can offer an opportunity for non-invasive verification of systemic involvement and allows accurate characterization of the cells, thus playing a major role in early diagnosis, management, differential diagnosis and prognosis of such patients.

Keywords: Multiple Solitary Plasmacytoma, Fine Needle Aspirate, Flow cytometry, Histopathology

Abstract ID: 123

ASSOCIATION OF LACTATE DEHYDROGENASE AND FERRITIN WITH SEVERITY IN COVID-19 PATIENTS

Presenting Author: **SABBAVARAPU HARIKA**
Co – Authors:
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Aim-Background: Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Recently some studies have reported that higher levels of certain biochemical markers like LDH and Ferritin are associated with higher mortality. So early identification of severe disease might be possible with these markers. This study aims to assess Lactate dehydrogenase (LDH) and Ferritin as prognostic markers for assessing mortality among COVID-19 patients.

Material-Methods:
It is an observational study
Study group includes 146 consecutive covid19 patients being admitted to hospital who require oxygen.
LDH & Ferritin levels are estimated by enzymatic & immunoturbidometric assay respectively in autoanalyzer.

Results: Mann Whitney test was done independently for LDH & Ferritin with outcome and found to be significant ($p<0.001$).

Conclusion: This study seeks to determine the utility of LDH & Ferritin levels as biomarkers in determining the mortality in COVID-19 patients. LDH & Ferritin levels were positively correlated with outcome and could reflect severity of disease.

Keywords: COVID-19, LDH, Ferritin, Mortality

Abstract ID: 48

ADULT TESTICULAR NON HODGKIN'S LYMPHOMA: CASE SERIES

Presenting Author: **SIMRAN AILANI**
Co – Authors: **MANJU RAGHAVA, NEHA SETHI, MANEESH K VIJAY**
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Aim-Background: To evaluate the clinicopathological profiles of patients presenting with testicular lymphomas.

Material-Methods: In our study from February 2020 to October 2022, 5 rare cases of testicular non hodgkin's lymphomas were included and were divided based on primary or secondary involvement. Immunohistochemistry (IHC) was performed on 4 out of these 5 cases and results

were compared based on clinicopathological profile.

Results: The mean age was 61 years. Most common presenting complaint was unilateral or bilateral testicular swelling, associated with pain in some cases. B symptoms were present only in one case. Out of 5 cases, 3 showed primary involvement and 2 were secondarily involved. On applying IHC, 2 out of 4 cases were diagnosed as Diffuse Large B-Cell Lymphoma (DLBCL), Non- Germinal Centre subtype and 2 cases were diagnosed as DLBCL, Germinal Centre subtype.

Conclusion: Testicular lymphomas are rare highly malignant tumors and pose a strong diagnostic difficulty for both clinician and pathologist. Hence, clinical suspicion should always be maintained in cases of testicular swelling for proper workup of the patient.

Keywords: Testicular lymphoma, Diffuse large B-cell lymphoma, Testis

Abstract ID: 113

ECCRINE POROMA OF SCALP.A RARE CASE REPORT

Presenting Author: **SAIRA MUNEER**
Co – Authors: **DR. SINDHU SHARMA, DR.JAVAID IQBAL**
Affiliation: **GOVERNMENT MEDICAL COLLEGE, JAMMU**

Aim-Background: To study clinical characteristics of eccrine poroma to help improve clinical acumen and management of such tumor.

Material-Methods: A 43 years old female presented with a mass on the scalp (left occipital region). Mass was soft ,protruding,greyish in colour,solitary and measuring 2×1cms in size.
FNA was done twice but yielded only hemorrhage.
Histopathological examination was done.

Results: The diagnosis was confirmed by histopathologic findings as an eccrine poroma. Histopathological diagnosis is crucial because eccrine poroma should be differentiated from basal cell carcinoma and seborrheic keratosis.

Conclusion: The present case is being reported because of its rarity and occurrence at a rare site. It is challenging to diagnose based on clinical presentation alone, hence histopathology is always the mainstay for early diagnosis and better management.

Keywords: Eccrine poroma,scalp

Abstract ID: 52

IGG4 RELATED ORBITAL DISEASE PRESENTING AS XANTHOGRANULOMATOUS INFLAMMATION, A RARE CASE REPORT

Presenting Author: **SHAGUN HARSH**
Co – Authors: **MANSI KALA, SUKHDEEP BAINS, MEENA HARSH**
Affiliation: **HIMALAYAN INSTITUTE OF MEDICAL SCIENCES, SRHU**

Aim-Background: Within the orbit, IgG4-related disease (IgG4-RD) can involve multiple tissue compartments, including the lacrimal gland (dacryoadenitis) and extraocular muscles (orbital myositis). The most common sites are lacrimal gland and extraocular muscles, which are affected in majority of patients. Orbital IgG4-RD, which occurs in adults, is characterized by IgG4-positive lymphoplasmacytic infiltrations in ocular adnexal tissues. The signs and symptoms include chronic noninflammatory lid swelling and proptosis. Patients have elevated serum levels of IgG4 and IgE as well as hypergammaglobulinemia.

Material-Methods: An 80 year old male presented with fullness in right upper lid and complete ptosis since 2 years. The initial histopathological diagnosis on biopsy was given as Xanthogranulomatous inflammation. Following which a wide local excision revealed chronic non-specific inflammation with a predominance of plasma cell and reactive lymphoid follicles with expanded marginal zone. IHC showed reactive plasma cells with polyclonal light chain expression. IgG4/IgG expression on plasma cells was >40%. Serum IgG4 > 240 mg/dl. Haematological parameters were within normal limits. CT scan showed extraconal soft tissue density mass in right orbit, arising from lacrimal gland. Patient was started with oral corticosteroids 5 mg/day. The patient is under follow up.

Results: The diagnosis of Idiopathic orbital inflammation requires the exclusion of tumors, infections and systemic inflammatory diseases. Our case was reported as Xanthogranulomatous in the first biopsy specimen with paucity of lymphoplasmacytic cells however repeat biopsy showed predominance of plasma cells with reactive lymphoid follicles.

Conclusion: The close relationship between Adult onset xanthogranuloma (AOX) and IgG4-RD is diagnostically challenging. Differentiating AOX from ocular IgG4-RD is important as development of lymphoma is a complication in latter. The incidence of IgG4-RD is underestimated due to underreporting and difficult diagnosis, as both diseases responded to immunosuppression, but may have different course of disease with more chances of systemic disease in IgG4-RD.

Keywords: IgG4-related disease, Xanthogranulomatous inflammation

Abstract ID: 42

NON HEPATOSPLENIC EXTAMEDULLARY HEMATOPOIESIS IN CERVICAL LYMPH NODE IN AN ADULT FEMALE: A RARE PRESENTATION OF PRIMARY MYELOFIBROSIS

Presenting Author: **BHARTI SAKLANI**
Co – Authors: **DR. MANSI KALA, DR. AVRITI BAVEJA**
Affiliation: **HIMS, DEHRADUN**

Aim-Background: Myelofibrosis (MF) is a rare hematopoietic disorder, which comes under the category of acquired clonal BCR- ABL negative myeloproliferative neoplasms. It is characterised by abnormal megakaryocytes and granulocytes along with reactive bone marrow fibrosis and extramedullary hematopoiesis. It is accompanied by JAK 2, CALR or MPL mutation in 90% of patients. MF is traditionally diagnosed in 6th and 7th decade of life and only few cases are seen before 40 years of age

Material-Methods: Here, we discuss a case of primary myelofibrosis in a twenty-six years old female who presented with generalised weakness, cervical lymphadenopathy, pancytopenia showing leucoerythroblastic blood picture along with occasional circulating blast. There was absence of hepatosplenomegaly.

Results: Bone marrow examination showed extensive fibrosis which was devoid of hematopoietic cells. The disease presented with constitutional symptoms and cervical lymphadenopathy suggesting a diagnosis of chronic lymphoproliferative disorder. However occasional megakaryocytic nuclei on peripheral smear, raised LDH, extramedullary hematopoiesis in lymph node and molecular work up for JAK2 V617F mutation which was positive, confirmed it as MPN. Following the DIPSS-plus scores the patient was categorized as high risk and was offered an allogenic bone marrow transplant.

Conclusion: Pre-fibrotic stage of myelofibrosis requires careful monitoring of megakaryocytes to differentiate it from Essential thrombocythemia and Polycythaemia Rubra Vera. Similarly, the fibrotic stage of MF can pose challenges especially if devoid of hematopoietic cell from secondary causes of myelofibrosis. Careful peripheral blood examination and right molecular work up can expedite the diagnosis and categorize these patients, especially in unusual presentations, as was seen in our case.

Keywords: Primary Myelofibrosis, young adult, extramedullary hematopoiesis

Abstract ID: 92

ACUTE MEGAKARYOCYTIC LEUKEMIA: A REPORT OF TWO CASES

Presenting Author: **BHARTI SAKLANI**
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Aim-Background: AML M7 is a rare subtype of AML accounting for about 1 to 2 % of all AML and about 10% of pediatrics AML. However, AMKL is the most frequent AML in children with down syndrome. It is characterized by proliferation of >20%blasts, of which 50% should be of megakaryocytic lineage.

Material-Methods:
Case1: A 22 year old female who presented with fever . Peripheral blood examination showed 25% blasts.Bone marrow aspiration showed blasts which were positive for CD45, CD41, CD4, CD13,CD33 and CD117 and negative for CD19, cytoplasmic CD3, MPO, Cd235a and hence a diagnosis of AML M7. She was started with Daunorubicin and cytarabine. The patient had an incomplete hematological recovery and was planned for second induction followed by allogenic bone marrow transplant.

Case 2: A 2 year old male child, known case of down syndrome, presented with complaints of fever. Complete hemogram revealed pancytopenia. A bone marrow aspiration resulted in dry tap. Bone marrow biopsy revealed marked fibrosis along with blasts.IHC showed positivity for CD61, CD34, CD56, CD7,CD117, CD71. The blasts were negative for MPO. A diagnosis of AML-M7 with downs syndrome was made. Daunomycin and cytarabine was given to the patient. Post induction bone marrow suggested no residual disease So, consolidation therapy as described in ML DS2006 protocol was given.

Results: Adult AML M7 is a rare form of AML and confers a poor prognosis. Whereas in children, it accounts for 7-10% of all AML cases.

Conclusion: We would like to emphasize that AMKL is quite challenging because of frequent myelofibrosis and a low percentage of circulating blasts, therefore, for its diagnosis, combination of bone marrow aspiration, biopsy and immunophenotype is suggested. Also, we want to discuss how the disease has different prognosis in two age groups.

Keywords: AML M7, adult aml m7, down syndrome

Abstract ID: 17

HISTOPATHOLOGICAL STUDY OF BONY LESION IN A CASE SHOWING MALIGNANT SMALL ROUND CELL TUMOUR

Presenting Author: **SHWETA KUMARI**
Co – Authors: **RISHI DIWAN,PROFESSOR**
Affiliation: **JHALAWAR MEDICAL COLLEGE**

Aim-Background: To analyse histomorphological features of malignant small round cell tumour. Malignant small round cell tumour are characterised by small, round, relatively undifferentiated cells. They generally include Ewing's sarcoma, peripheral neuroectodermal tumour, rhabdomyosarcoma, synovial sarcoma, non Hodgkin lymphoma, retinoblastoma, neuroblastoma, hepatoblastoma and nephroblastoma or Wilm's tumour. Other differential diagnosis of small round cell tumour include small cell osteogenic sarcoma, undifferentiated hepatoblastoma, granulocytic sarcoma and intraabdominal desmoplastic small round cell tumour. Differential diagnosis of small round cell tumour is particularly difficult due to their undifferentiated or primitive character.

Material-Methods:
1 Tissue fixation- Specimen after being received in department of pathology fixed by 10% neutral buffered formalin
2 Tissue processing
A Dehydration- using graded alcohol beginning with 50% ethyl alcohol, 70% ethyl alcohol then 85% then 95% of ethyl alcohol
BClearing - using xylene which removed dehydrating agent alcohol
C Embedding- tissue was surrounded by embedding agent which was freshly melted paraffin wax and blocks were prepared which allowed tissue blocks to be cut into very thin sections
3 Sectioning - microtome is used, wax removed from surface of block. Microtome cuts thin section of 5 micrometer from the block
4 Staining- Hematoxylin and eosin stains were used for slide staining

Results: On microscopy sections show sheets of small, round to oval and spindle cells which are hyperchromatic with interspersed cartilaginous islands. There are areas of necrosis and calcification. The cartilaginous tissue shows peripheral ossification in the form of woven bone. Focal areas of osteoid like material is also seen. Few multinucleated giant cells are seen.
Histopathological features are suggestive of "Malignant small round cell tumour".
Following differentials could be offered:-
1Mesenchymal chondrosarcoma
2Small cell osteosarcoma

Conclusion: With correlation of detailed clinical evaluation and investigation with biopsy findings, correct diagnosis can be achieved because it is very important to differentiate mesenchymal chondrosarcoma and small cell osteosarcoma due to overlap in histopathological features

Keywords: Malignant small round cell tumour ;Histopathological

Abstract ID: 45

A CASE REPORT ON FIBROUS DYSPLASIA OF MAXILLA

Presenting Author: **ANKUR KATEWA**
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Affiliation: **JHALAWAR MEDICAL COLLEGE, JHALAWAR**

Aim-Background: A case of 37years old male presented with swelling on right middle third of face, progressively increasing in size since 1 year. Biopsy recieved and histopathological examination was done.

Material-Methods: The biopsy received in the department of pathology in jhalawar medical college jhalawar in March 2021. Histopathological examination was done.

Results: Fibrous dysplasia was diagnosed on histo pathology. Histology show proliferation of bland fibroblasts intermingled with irregular and curvilinear trabeculae of woven bone without lining of osteoblasts along with fibrocollagenous tissue.

Conclusion: Fibrous dysplasia is a rare bone tumor caused by interruption of regular bone growth and is usually benign in nature but proper diagnosis and treatment may prevent the recurrence and malignant transformation. Fibrous dysplasia is a benign fibroseous lesion. Exact etiology is uncertain , is probably a genetic predisposition by mutation in guanine nucleotide binding protein (GNAS1) gene on chromosome 20q 13. Clinically present as a asymptomatic diffuse swelling of affected region causing asthetic impairment and deformity.

Keywords: Fibrous dysplasia, Guanine nucleotide binding protein, fibroseous,Benign,Bony trabeculae.

Abstract ID: 27

A HISTOPATHOLOGICAL STUDY OF ECCRINE POROMA

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Aim-Background: 1)To analyze the histomorphological pattern of eccrine poroma 2)To differentiate eccrine poroma from its differential diagnoses which include both benign and malignant lesions.3) To elucidate the histopathological features of eccrine poroma which can help arrive at the correct diagnosis because the clinical diagnosis of eccrine poroma is often delayed or inaccurate.

Material-Methods: 1)Tissue fixation by 10% neutral buffered formalin
2) Gross examination

3) Tissue processing comprising of dehydration by using graded ethyl alcohol,clearing by xylene and embedding where tissue is surrounded by paraffin wax as embedding agent
4)Tissue Sectionining by microtome
5) Staining with Hematoxylin and Eosin for direct examination under microscope.

Results: Section shows circumscribed tumor composed of interconnecting bands of monomorphic cuboidal epithelial tumor cells growing down into the dermis with multiple attachments to the epidermis.There is sharp demarcation from the epidermis. Ductal lumina with single row of luminal cells covered by eosinophilic lining or cystic spaces devoid of any formal lining is seen. The tumor shows formation of ductal lumina and intracytoplasmic lumina,large cystic areas and delicate fibrovascular stroma.The cells are devoid of peripheral palisading.Cells are united by conspicuos intercellular bridges.There is presence of sheets and trabeculae of monomorphic, round basophilic cells containing scattered duct-like structures.Clear cells containing glycogen are unevenly distributed throughout the tumor.

Conclusion: With correlation of detailed clinical evaluation and investigations with histopathological study findings a correct diagnosis can be arrived at because it is very important to differentiate from the clinical differential diagnosis which is comprised of both benign and malignant neoplasms including pyogenic granuloma, melanocytic nevus, seborrheic keratosis, angioma, dermatofibroma, clear cell acanthoma, neurofibroma, soft fibroma, amelanotic melanoma, squamous cell carcinoma, basal cell carcinoma, Merkel cell carcinoma, and porocarcinoma.It is emphasized that eccrine poroma should be considered in the differential diagnosis of chronic foot lesions and a biopsy study is of utmost importance in arriving at a specific diagnosis.

Keywords: eccrine poroma,lumina,bridges,tumor

Abstract ID: 28

IDIOPATHIC THROMBOCYTOPENIC PURPURA – A CLINICOHEMATOLOGICAL CORRELATION.

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Aim-Background: To evaluate Clinico-hematological findings in a patient with Thrombcytopenia. Material-Methods: In this case study cbc was done with help of sysmax 5 part analyser following which pbf was made and evaluated and bone marrow aspiration was advised. upon examination of bone marrow findings futher evaluation was done. in this study field stain and leishman's stain was used.

Results: CBC of patient's peripheral blood show marked thrombocytopenia. PBF study show mild anisocytosis with severe thrombocytopenia with normal morphology of platelets. Bone marrow examination show megakaryocytic hyperplasia with non functional megakarycytes. Cellularity is normal, predominantly normablastic erythroid series cells, normal myloid series cells with no immature cells. With the help of rule out/ in methodology among the differentials of

thrombocytopenia diagnosis of ITP was made.

Conclusion: Idiopathic thrombocytopenic purpura (ITP) may occur when immune system mistakenly attacks platelets. In children, it may follow a viral infection. In adults, it may be chronic. According to above history, Physical examination, CBC findings, PBF findings and Bone marrow examination findings diagnosis of Idiopathic Thrombocytopenic Purpura (ITP) should always be considered.

Keywords: Idiopathic Thrombocytopenic Purpura (ITP), Megakaryocytic hyperplasia.

Abstract ID: 130

A RARE CASE OF UTERINE LIPOMA

Presenting Author: **NUPUR VERMA**
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Aim-Background: The diagnosis of pure lipoma should only be made when smooth muscle is any is confined to the periphery of the tumor.5 The histogenesis is unclear. Pre operative diagnosis is if any should be confirmed by histopathology, as these tumors can make a variety of other uterine neoplasms including malignancy.

Material-Methods: A 60 year old postmenopausal woman presented with chief complaint of pain in lower abdomen since 2 months. On examination a firm mass was felt in hypogastrium. Ultrasonography was suggestive of carcinoma endometrium where a CT scan report suggested the possibilities of Leiomyoma with fatty degeneration or uterine lipoma.
We received abdominal hysterectomy with bilateral salpingo-oopherectomy specimen with a prediagnosis of Leiomyoma.

Results: Microscopic examination reveals A benign tumor composed of mature adipocytes separated by thin fibrovascular septae. Myometrium showed no features of leiomyoma. There was no evidence of atypia or malignancy in adipocytes. Endometrium showed atrophic changes. Both tubes were unremarkable and both ovaries showed corpus albicans cyst. Based on these histopathological findings, the diagnosis of pure uterine lipoma was made.

Conclusion: In conclusion, the physician should be aware that a uterine lipoma is an extraordinarily rare tumor and as such it is sometimes very difficult to diagnose. MRI imaging can be helpful for a preoperative diagnosis, but good histopathological confirmation is necessary. Conservative management can be chosen for the asymptomatic patients. If surgical treatment is decided upon, minimally invasive laparoscopic surgery can be a better choice.

Keywords: lipoma, lipoleiomyoma, adipocytes

Abstract ID: 44

PLEXIFORM FIBROHISTIOCYTIC TUMOR OF ELBOW: A RARE CASE REPORT

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Co – Authors: **SUSHANT SAHU, VEENA MAHESHWARI, MURAD AHMAD, ZEESHAN NAHID**
Affiliation: **JN MEDICAL COLLEGE, AMU, ALIGARH**

Aim-Background: Introduction: Plexiform fibrohistiocytic tumor (PFT) is extremely rare lesion with low malignant potential first described by Enzinger and Zhang in 1988 that mainly affects female children and young adolescents. Clinically the tumor typically presents as a painless dermal or subcutaneous mass, which slowly grows for a period of months or years that usually involves the upper extremity, especially the shoulder and forearm, although it has also been described in the lower extremity, trunk, abdominal wall, head, face, and neck.

Material-Methods: Case report: A 25-year old male patient was admitted to the Department of the plastic surgery, Jawaharlal Nehru medical college and hospital, AMU, Aligarh due to complaint of subcutaneous swelling in bilateral elbow region for 7 years. The lesion was excised and sent for histopathological examination, with the clinical diagnosis of Neurofibroma.
On gross examination, two partially skin covered, creamish white firm globular tissue pieces received, each measuring 5.3x5.0x2.0 cm and 2.5x1.5x0.5 cm. C/S showed multiple nodules and areas of haemorrhage. On M/E, deep dermis showed multiple nodules of fibrohistiocytic cells separated by thin fibrous septa and dense lymphocytic infiltrate. Nodules and clusters were seen in plexiform arrangement with numerous prominent dilated vessels. Mitotic activity was absent.

Results: Not Applicable

Conclusion: The diagnosis of Plexiform fibrohistiocytic tumour must be considered when children and adults younger than 30 years of age come with painless dermal or subcutaneous swelling or mass, which slowly grows for a period of months or years that usually involves the upper extremity, especially the shoulder and forearm, although it has also been described in the lower extremity, trunk, abdominal wall, head, neck and face. A high index of suspicion must be kept to diagnose the disease as it leads to significant morbidity.

Keywords: Dermal or Subcutaneous mass, Plexiform fibrohistiocytic tumor, Histiocyte, spindle cell.

Abstract ID: 53

RARE SPINDLE CELL LESIONS OF PAROTID GLAND: SOLVING THE DILEMMA

Presenting Author: **MEDHA MANI GUPTA**
Co – Authors: **DR. BUSHRA SIDDIQUI, DR. VEENA MAHESHWARI, DR. WASIF M. ALI, DR. PRADYUMN SINGH**
Affiliation: **JUNIOR RESIDENT**

Aim-Background:
1.To discuss the various spindle cell lesions that may occur in parotid region
2.To discuss the role of Immunohistochemistry in reaching the diagnosis of spindle cell lesions of parotid
3. To report a rare case of spindle cell lesion of parotid region

Material-Methods: A 31 year old male patient presented to the surgery OPD with the complaint of gradually progressive swelling over right side of face since 4 years. On examination it was firm to hard swelling of 4×3 cm present over right parotid region. USG revealed an irregular, heterogenous parotid swelling of 4.2×3.8 cm. FNAC showed a spindle cell lesion.Patient underwent total parotidectomy for the same and a creamish-white tissue measuring 7×4.5 cm was received for histopathology.

Results: H&E stained sections showed spindle cells arranged in storiform pattern. Spindle cells had monomorphic ovoid nuclei, moderately abundant eosinophilic cytoplasm. Some areas of normal salivary gland and fat entrapment were also seen. Some staghorn shaped blood vessels were also present.
A differential diagnosis of 1. Dermatofibrosaroma protuberans (DFSP) 2. Solitary fibrous tumour of parotid was made and a panel of IHC markers was applied consisting of vimentin, CD 34, STAT 6 and S100 and the diagnosis was made.

Conclusion: H&E stained sections showed spindle cells arranged in storiform pattern. Spindle cells had monomorphic ovoid nuclei, moderately abundant eosinophilic cytoplasm. Some areas of normal salivary gland and fat entrapment were also seen. Some staghorn shaped blood vessels were also present. A differential diagnosis of 1. Dermatofibrosaroma protuberans (DFSP) 2. Solitary fibrous tumour of parotid was made and a panel of IHC markers was applied consisting of vimentin, CD 34, STAT 6 and S100 and the diagnosis was made.

Keywords: Spindle cell lesion, parotid, immunohistochemistry

Abstract ID: 95

GLOMUS TUMOR OF PENIS A RARE CASE REPORT

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Affiliation: **JUNIOR RESIDENT**

Aim-Background: To study a rare case of glomus tumor of intermediate malignant potential involving shaft of penis.

Material-Methods: A 38 year old male presented with complaints of thinning of urine stream. On examination a hard, lumpy growth measuring 2×1.5 CM was present in shaft of penis. The specimen was processed histopathologically. Further IHC was applied to confirm the diagnosis.

Results: Glomus tumors are rare tumors, arising from modified smooth muscle cells. They are extremely rare in penis. On histopathological examination proliferation of tumor cells having increased N/C ratio, hyperchromatic nuclei alon with slit like lumina is seen. A differential of Kaposiform angiosarcoma versus Glomus tumor was rendered. On IHC CD34 was positive focally in blood vessels but not in tumor cells. SMA and Vimentin were positive in tumor cells.

Conclusion: The differential diagnosis of glomus tumors include hemangiomas, kaposiform sarcoma, spindle cell lesions. These tumors are usually benign but have malignant potential. Diagnosis should be made bu thorough clinical examination and histopathological findings. Treatment is usually complete surgical resection.

Keywords: Glomus tumor, penis, vascular tumor.

Abstract ID: 110

A CASE OF GASTRIC XANTHOMA PRESENTING AS WHITE PLAQUE

Presenting Author: **SWATI MISHRA**
Co – Authors:
Affiliation: **MOTILAL NEHRU MEDICAL COLLEGE PRAYAGRAJ**

Aim-Background: Gastric xanthomas are uncommon, benign tumor like lesions composed of collection of lipid laden macrophages in the lamina propria. Stomach is the most common site. They tend to increase with age, and the frequency is highest in the seventies. Males are affected more than females, with a 3:1 male predominance. Can be associated with chronic gastritis, intestinal metaplasia, atrophic gastritis, gastric ulcer, and changes caused by bile reflux or partial gastrectomy. The histologic appearance of xanthomas can resemble certain malignant lesions such as clear cell type of carcinoid tumors and signet ring cell type adenocarcinoma. Endoscopically seen as, sessile, single or multiple, 1- to 5-mm, yellowish white mucosal nodules or plaques.

Material-Methods: 62 yrs old female presented with dyspeptic symptoms for last 3 months. The haematological investigations showed mild microcytic hypochromic anaemia. Other investigations done were within normal limits. The Upper GI endoscopy revealed small groups of whitish plaques on lesser curvature in body and fundus. Further Endoscopic biopsy from stomach was done.

Results: Endoscopic biopsy from stomach was done which showed hyperplastic mucosal lining along with diffuse infiltration of lamina propria by cells with clear cytoplasm. This was supported by Immunohistochemistry CD68 and MUC 5AC.

Conclusion: This case is considered worth for presentation due to its histologic resemblance with certain malignant lesions such as clear cell type of carcinoid tumors and signet ring cell type adenocarcinoma.

Keywords: Xanthoma, gastrointestinal, gastric

Abstract ID: 111

UTILITY OF CYTOLOGY IN THE DIAGNOSIS OF PARASITIC INFESTATION – A SERIES OF FOUR CASES

Presenting Author: **SWATI MISHRA**
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Affiliation: **MOTILAL NEHRU MEDICAL COLLEGE PRAYAGRAJ**

Aim-Background: Parasitic infestation is one of the serious health problems encountered in developing countries. It presents as asymptomatic or nodular swellings which are often misdiagnosed as neoplasm or lymphadenitis depending on the site. We present a series of four cases of parasitic infestation that presented in Pathology Department of our college.

Material-Methods:
Case 1- 43yrs old female, presented with complains of lower abdomen pain and discharge per vaginum. On PAP smear numerous safety pin structures were seen (Donovan bodies) favouring donovanosis.
Case 2- 26yrs old female presented with Right breast swelling. On FNAC spirally coiled organisms were seen, suggestive of Granulomatous lesion probably due to Trichinella spiralis.
Case 3- 50yrs old male presented with pericardial tamponade and was diagnosed as Malignant Effusion with Filariasis on cytology.
Case 4- 30yrs old male presented with vague abdominal lump. On FNAC was reported as Filariasis.

Results:
Case 1- On PAP smear numerous safety pin structures were seen (Donovan bodies) favouring donovanosis.
Case 2- On FNAC spirally coiled organisms were seen, suggestive of Granulomatous lesion probably due to Trichinella spiralis.

Case 3- Diagnosed as Malignant Effusion with Filariasis on cytology.
Case 4- On FNAC was reported as Filariasis.

Conclusion: The cases were considered for presentation to show the role of FNAC and fluid examination as the diagnostic modalities for early diagnosis of parasitic infestations and also to curtail meticulous surgeries and whip up the role of medical management.

Keywords: Parasite, FNAC, swellings

Abstract ID: 85

ESTIMATION OF SERUM UREA, URIC ACID AND CREATININE IN ORAL SUBMUCOUS FIBROSIS PATIENTS

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Affiliation: **NATIONAL INSTITUTE OF MEDICAL SCIENCES AND RESEARCH,JAIPUR,RAJASTHAN**

Aim-Background: To estimate the level of serum urea, Uric acid, and Creatinine in OSMF patients and compare them with healthy controls.

Material-Methods: The purposive samples were selected from patients attending the OPD of the Oral Medicine and Radiology (OMR) Department.study included 20 OSMF patients and 20 Healthy control.

Results: No significant variation was observed in serum Urea,Uric acid and Creatinine levels when compared with healthy controls.

Conclusion: This study showed that serum uric acid, urea and creatinine were altered in OSMF patients compared with healthy volunteers but were statistically insignificant. However, further prospective cohort studies are suggested to better understand their role in the etiopathogenesis of OSMF.

Keywords: Oral submucous fibrosis,Urea,Uric acid,Creatinine

Abstract ID: 16

DIAGNOSTIC UTILITY OF FINE NEEDLE ASPIRATION CYTOLOGY IN HEAD AND NECK LESION: A RETROSPECTIVE STUDY

Presenting Author: **SHUBHAM CHANDAK**
Co – Authors:
Affiliation: **PG STUDENT**

Aim-Background: To study Diagnostic utility of FNACs in head and neck lesion.

Material-Methods: This is a retrospective study which included 158 cases of FNACs done on head and neck swellings performed over a 12-month period.

Results: Total 158 cases were analysed in this study, age ranges from 1 to 75 years, in which 56% were male and 44% were female. Maximum incidence in the age group of 31 to 45 years. Most common site involved is cervical region, in which most of them were benign lesions mainly reactive lymphadenitis.

Conclusion: FNAC is a simple, quick, inexpensive and minimally invasive technique to diagnose different types of head and neck swellings. It's not only diagnostic but can be therapeutic especially in cystic lesion. Thus, FNAC can be recommended as a first line of investigation in the diagnosis of head and neck swellings.

Keywords: FNACs

Abstract ID: 94

ENTEROGENIC CYST : A RARE CASE PRESENTATION

Presenting Author: **RAJSHREE CHOUHAN**
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Affiliation: **RUHS**

Aim-Background: An enterogenous cyst is a rare congenital condition usually detected during infancy or childhood .Usually seen in mediastinum, skull, spinal canal, subcutaneous tissue, or gastrointestinal tract from the mouth to the anus .Early diagnosis and resection of enterogneous cysts should be done so that fatal complications can be avoided.

Material-Methods: The sample sent for histopathological examination was measured and its external surface was noted for colour, perforation any necrosis. After opening along the antimesenteric border its cut surface was seen. Then sections were taken and after processing of tissue, hematoxylin and eosin staining was done and examined under microscope.

Results: Microscopic features shows gastric mucosa along with normal intestinal mucosa and irregularly arranged muscle bundles and lymphoplasmacytic infiltration in underlying connective tissue suggestive of enterogenous cyst .

Conclusion: Early diagnosis and resection of enterogneous cysts should be done to prevent further complications .

Keywords: enterogenous cyst , congenital anomaly,illeum

Abstract ID: 23

MYOPERICYTOMA: A RARE BENIGN TUMOUR; CASE SERIES OF THREE CASES

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Affiliation: **S. N. MEDICAL COLLEGE , AGRA**

Aim-Background: 1.To study the histomorphological features and review of literature of myopericytoma.

Material-Methods: The swellings were excised, histopathological examination was done, and diagnosis was confirmed on IHC.

Results: On histopathological examination the tumor showed proliferation of bland round to ovoid cells with eosinophilic cytoplasm and indistinct cell boundaries in concentric fashion around thin-walled vessel . No atypia, mitosis and necrosis were noted and a diagnosis of myopericytoma was made. Immunohistochemistry was positive for smooth muscle actin (SMA) and negative for desmin

Conclusion: Myoperiytoma is an uncommon benign tissue tumor with a low rate of recurrence. The combined use of histopathological examination and immunohistochemistry is required for correct diagnosis and differentiation between the tumor and its mimics are essential to optimize patient outcome.

Keywords: benign, immunohistochemistry, perivascular, rare.

Abstract ID: 86

LANGERHANS CELL HISTIOCYTOSIS- RARE LESION AT UNCOMMON SITE

Presenting Author: **SNEHA**
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Affiliation: **SENIOR RESIDENT ESIC MEDICAL COLLEGE KALABURAGI**

Aim-Background: To study the squash cytology of Langerhans cell histiocytosis of rare intracranial location and correlating with histopathology

Material-Methods: This study was carried out in the department of pathology ,M.R Medical college in 2018 .
CASE HISTORY : 3 yrs old male child came wit history of swelling over left frontal region (intracranial extension) where clinically dey diagnosed as meningioma or LCH With MRI showing findings of Epidermoid cyst in left frontal region .The specimen was collected and sent for Squash cytology and remaining sample for HIstopathological study

Results: On Squash cytology - cellular smears showed round to spindle shaped cells having abundant eosinophilic cytoplasm with irregular nuclei with prominent nuclear grooves along with lymphocytes and eosinophils in background.Diagnosis- Langerhans cell histiocytosis was made
On Histopathological study ,showed round to oval cells having abundant eosinophilic cytoplasm, irregular nuclei wit prominent nuclear grooves wit indistinct nucleoli . Foci of necrosis along wit few mitosis noted along with lymphocytes and plasma cells in the background .Diagnosis of Langerhans cell histiocytosis of intracranial location was made

Conclusion: As a systemic disease ,Langerhans cell histiocytosis has potential to involve the brain and its diagnosis is extremely rare and challenging . Intracranial LCH is still a rare occurrence today as primary or secondary focus , which can b confused with Glioblastoma or brain metastasis. Appropriate imaging studies and biopsy is required for precise diagnosis and exclusion of other intracranial lesion

Keywords: langerhans cell histiocytosis, squash cytology, intracranial

Abstract ID: 56

THE MADURA FOOT: A CASE OF EUMYCOTIC MYCETOMA ON HISTOPATHOLOGY

Presenting Author: **SHWETA RANA**
Co – Authors: **SHILPA GARG, SONIA HASIJA, PUJA SHARMA**
Affiliation: **SHRI ATAL BIHARI VAJPAYEE GMC, CHHAINSA, FARIDABAD**

Aim-Background: Madura foot or mycetoma is a chronic granulomatous disease characterized by chronic infection of skin and subcutaneous tissues, caused by true fungi (eumycetoma) or by filamentous bacteria (actinomycetoma).

Material-Methods: Case Report: A 30-year-old male presented with swelling of the dorsum of right foot for 2 years. The swelling was progressively enlarging and associated with pain while walking. Clinical examination revealed tumefaction, draining sinuses discharging purulent exudate. Foot radiograph showed localized areas of bone destruction. Curetted material from bone and excised soft tissue containing blackish granules was sent for culture and histopathological examination. Fungal cultures were negative. Histopathological examination showed fibromuscular and bony tissue with interlacing, septate, branching hyphae embedded in interstitial brownish matrix with numerous spores associated with a dense inflammatory cell infiltrate comprising lymphocytes, few polymorphs, aggregates of epithelioid cells with giant cell reaction. Gomori methenamine silver (GMS) and Periodic acid Schiff (PAS) stains provided excellent contrast and delineated 4-5µm thick septate hyphae of eumycetoma. Gram stain was negative. A diagnosis of Eumycotic mycetoma was made and the patient was treated with antifungals. There was a good clinical response.

Results: Discussion:
Histopathological examination proves useful in differentiating actinomycetoma from eumycetoma. The granules of actinomycetoma consisting of fine, branching filaments, only about 1µm thick are gram positive whereas the grains of eumycetoma are gram negative. Eumycotic grains are better identified by PAS and GMS stains and are composed of 4-5µm thick septate hyphae. Confirmation of diagnosis and exact identification of the species requires culture.

Conclusion: Conclusion: Mycetoma is often neglected in the initial stage and there is a high incidence of secondary bacterial infection, deformities, and recurrences. Treatment modalities for both the etiologies are far different, hence a definite diagnosis after histopathological and microbiological examination is mandatory.

Keywords: Keywords: Mycetoma, Eumycetoma, Madura Foot, Actinomycetoma

Abstract ID: 54

PERFORATED MECKEL'S DIVERTICULUM WITH ASSOCIATED INTESTINAL TUBERCULOSIS - A RARE CASE REPORT.

Presenting Author: **ARYAPRABHA S.S**
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Affiliation: **SHRI SIDDHARTHA MEDICAL COLLEGE, TUMKUR**

Aim-Background: Meckel's diverticulum is a true diverticulum, consisting of all the three layers of small intestine. It is a remnant of vitellointestinal duct found on the antimesenteric side of the ileum. Perforation of meckel's diverticulum is an uncommon complication of an effectively uncommon abnormality, which regularly mimics an appendicular perforation clinically. Although intestinal tuberculosis is a major issue in many parts of the world, few cases of perforated meckel's diverticulum with intestinal tuberculosis have been reported in the literature and here we are reporting one such case in a 20 year old boy.

Material-Methods: 20 year old male patient presented with abdominal pain and vomiting. Laboratory tests showed an elevated leukocyte count of 14,600 cells/cu.mm. Abdominal ultrasound showed peritonitis likely secondary to appendicular perforation. Exploratory laparotomy has been done and diverticulum excised and sent for histopathological examination.

Results: Histopathological examination revealed perforated meckel's diverticulum with caseated granulomas are seen in the wall of diverticulum and in the adjacent resected ileal segments. Tissue sent for AFB stain and RT-PCR.

Conclusion: Perforation of meckel's diverticulum and association of tuberculosis is a rare entity. Emergency laparotomy and resection of the affected small bowel segment including the diverticulum and anti TB drugs is the treatment of choice for management.

Keywords: Perforated meckel's diverticulum, Intestinal tuberculosis

Abstract ID: 114

A CASE OF CONJUNCTIVAL MALIGNANT MELANOMA IN AN 85-YEAR-OLD NON-CAUCASIAN LADY: A RARE ENTITY

Presenting Author: **PAYEL HAZARI**
Co – Authors: **DR.MOMOTA NAIDING, DR.MONOJ KUMAR DEKA, DR.SUMITA DUTTA GUPTA, DR. SHAH ALAM SHEIKH**
Affiliation: **SILCHAR MEDICAL COLLEGE AND HOSPITAL**

Aim-Background: Conjunctival malignant melanoma is a rare tumour with an annual age-adjusted incidence of about 1.5 cases per million people over the age of 65. Although this occurs more frequently in the white population, it is uncommon in the pigmented ethnicity. Its clinical manifestation varies, making clinical diagnosis challenging. This tumour is fatal due to the delay in diagnosis with frequent recurrence.

Material-Methods: An 85-year-old woman noticed a black-colored growing conjunctival tumor in her right eye for the last 4 months. There was swelling and loss of vision in the right eye. An MRI-orbit, FNAC was done, Right eye orbital exenteration was performed using a temporalis muscle flap and SSG (Split Skin Graft) reconstruction was done. The HPE was done and IHC with S-100 marker was also performed.

Results: An MRI-orbit revealed a mass lesion involving the right pre-septal space and the lacrimal fossa. FNAC was done on the conjunctival growth and diagnosed as malignant melanoma. The HPE was also found to have malignant melanoma and confirmed with an S-100 marker.

Conclusion: A rare case of conjunctival malignant melanoma of the right eye was reported in an elderly female. The tumour was diagnosed on MRI, FNAC, USG-colour Doppler and confirmed by excisional biopsy and IHC with S-100.

Keywords: Conjunctival malignant melanoma, orbital exenteration, FNAC, HPE, S-100

Abstract ID: 138

LARGE MUCINOUS CYSTIC NEOPLASM OF MESOCOLON IN ASSOCIATION WITH DUODENAL ADENOCARCINOMA IN AN ELDERLY MALE: A DIAGNOSTIC CHALLENGE AND A RARE INCIDENTAL ENTITY

Presenting Author: **PRACHI**
Co – Authors: **Dr. Hema Malini Aiyer[1], Dr.Ashish Shrivastav[2]**
Affiliation: **[1]Department of Pathology, Dharamshila Narayana superpesiciality hospital, New Delhi, India. | [2]Department of Neurosurgery, Dharamshila Narayana superpesiciality hospital, New Delhi, India.**

Background: Mucinous cystic neoplasms of the mesocolon are rare intra-abdominal lesion in the spectrum of mesenteric cysts. These are tumours of uncertain histogenesis. The patient usually, presents with abdominal pain, distension or a palpable mass, but majority of the times its an incidental finding. Predominantly seen in females, extremely rare in males.

Till date only two cases of mucinous neoplasm of Mesocolon have been reported in males, They commonly arise from ovaries, or from extra-ovarian sites like pancreas, liver, appendix and other intra-abdominal sites.

Case Report: 66 year old male, presented with multiple episodes of vomiting, abdominal distension since 2 months and weakness since a week. He was a diagnosed case of Duodenal Adenocarcinoma – Grade 2 (Moderately differentiated) on Upper Gastrointestinal Endoscopic biopsy.CECT and MRI imaging revealed multiloculated septate cystic lesion close to the duodenal stricture were seen and diagnosed as Cystic Lymphangioma on imaging. He underwent Whipple's Resection and Right Hemicolectomy.

PATHOLOGICAL FINDINGS: Histopathology from the cyst wall, which was unique finding in this case, showed lining of mucin secreting epithelium of intestinal type with focal areas of cellular stratification and cribriform appearance, absence of ovarian like stroma and no evidence of atypical proliferation or malignancy. Immunohistochemically, diffuse positivity for CK7 and CK20 was observed. Morphologically and Immunohistochemically features were consistent with Large Mucinous Cystic Neoplasm of Mesocolon.

CONCLUSION: Mucinous cystic neoplasms of the mesentery present almost exclusively in women, with very low incidence in males and must be considered in the differential diagnosis of mesenteric tumors. They pose a diagnostic challenge, due to rarity, lack of specific symptoms, biochemical markers and radiological findings. Hence, histopathological examination helps in definitive diagnosis.

Abstract ID: 106

A CASE OF EXTRAMEDULLARY HEMATOPOIESIS IN MULTINODULAR GOITRE WITH FOCAL PAPILLARY MICROCARCINOMA

Presenting Author: **MINU CHANDRAN**
Co – Authors: **REEBA MARY RAJAN**
Affiliation: **SM CSI MEDICAL COLLEGE, KARAKONAM, TRIVANDRUM, KERALA**

Aim-Background: Osseous metaplasia with bone formation and extramedullary hematopoiesis is rarely reported

Material-Methods: Case report of a rare case

Results: A case of Extramedullary Hematopoiesis in multinodular goitre with focal papillary microcarcinoma

Conclusion: Osseous metaplasia with mature bone formation, extramedullary hematopoiesis and Papillary microcarcinoma

Keywords: Osseous metaplasia, extramedullary hematopoiesis, multinodular goitre,papillary carcinoma, thyroid, bone formation

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Medsource Ozone Biomedicals launches India's first 'Made in India' Autoimmune testing kits

Faridabad, 30.11.2022: Medsource Ozone Biomedicals, one of the largest Indian IVD manufacturers providing solutions to diagnostic laboratories across domestic and global markets today announced the launch of their **Made in India Autoimmune Assays.** These test kits help in diagnosis of **autoimmune disorders** which has been setup at a state-of-the-art manufacturing facility in Faridabad (Delhi / NCR region) in a collective collaboration with their German counterpart, **Human Diagnostics GmbH.**

The manufacturing facility was inaugurated by **Dr. N.K. Ganguly** - Former Director General ICMR, **Dr. G. Narsimulu** - Former Professor and HOD – Rheumatology, Nizam's Institute, **Dr. Nilesh Shah** - President, Metropolis Healthcare Ltd. and **Dr. Bjorn Breth** - Managing Director, Human Diagnostics Germany.

Aligning with the Government of India initiative of 'Make in India', **Medsource Ozone Biomedicals** has begun the manufacture of Autoimmune diagnostic kits in India for domestic as well as export markets. It is the first of its kind facility for autoimmune kits in the country. Indigenisation will ensure cost effective, automation friendly, high-quality assays to be now available within India. While the kits are already being used in large hospitals and labs, this initiative is aimed at enabling a much wider adoption ultimately enhancing the access to quality autoimmune diagnostics to a larger audience across the country.

Speaking on the occasion, **Mr. Prateek Mittal, Director, Medsource Ozone Biomedicals**, said *"It gives us an immense pleasure to launch India made Autoimmune diagnostic kits today. Autoimmune disorders are already a leading cause of death among young women in western world, and in India, we have an increasing incidence for such diseases as well. We intend to service the need for a reliable, accurate, cost effective and high-quality products, ultimately enabling better patient outcome."*

Dr. Bjorn Breth, Managing Director, Human Diagnostics Germany expressed his happiness for the new initiative and spoke on the potential of this collaboration, *"Medsource Ozone Biomedicals has demonstrated an excellent manufacturing knowhow. Even now, we are focusing on the same quality standards we follow in Germany to be followed here in India. We are thrilled with the response so far, and excited on the potential for such partnerships. The kits being manufactured are designed to work well also with our automation solutions and we hope to work closely with our Indian customers".*

The launch event will be followed by three seminars along with a hands-on workshop on Autoimmune testing in New Delhi, Hyderabad and Mumbai. Also, the same shall be attended by

the prominent leader from various laboratories, hospitals and healthcare industry from across the country.

About Medsource Ozone:

Medsource Ozone Biomedicals is one of the largest Indian diagnostics products (IVD) manufacturer. Founded in 2003, the Delhi NCR based organization provide comprehensive solutions for medium and large sized labs across India and 40 global countries for clinical chemistry, hematology, rapid diagnostic tests, molecular diagnostics, diabetes monitoring, blood banking and **autoimmune diagnostics.** Being one of the largest rapid test manufacturers, their top-quality products, including the Ozocheck brand of

personal healthcare products are offered to customers through a team of professional sales and service engineers and qualified distribution partners.

For any further details, please contact:

Mr. Prateek Mittal,
Director – Marketing,
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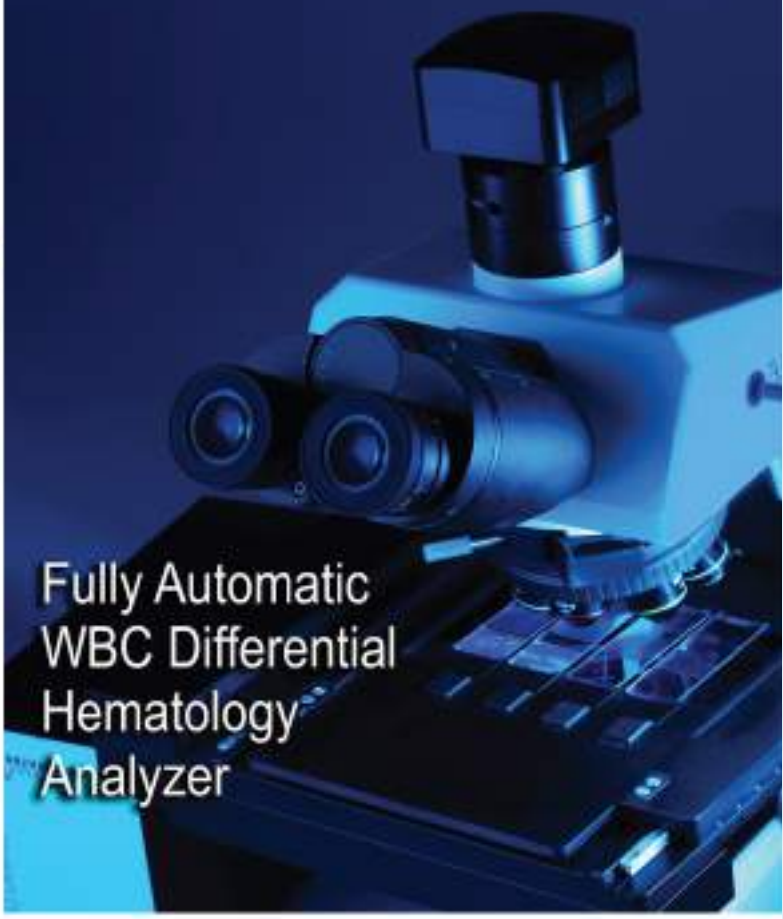

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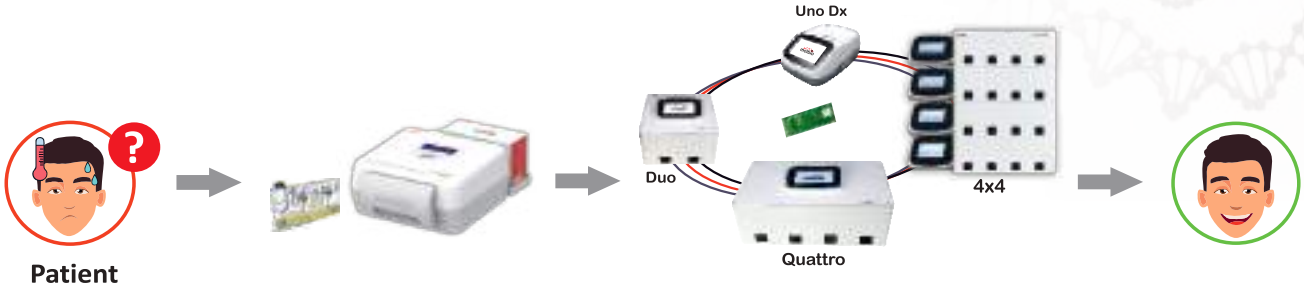

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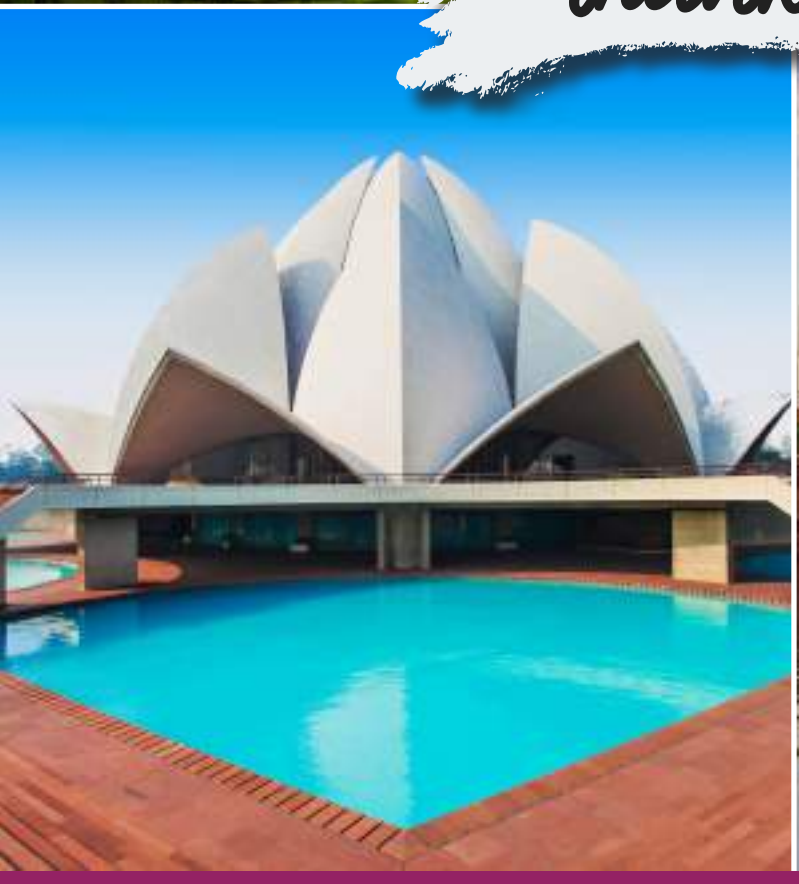

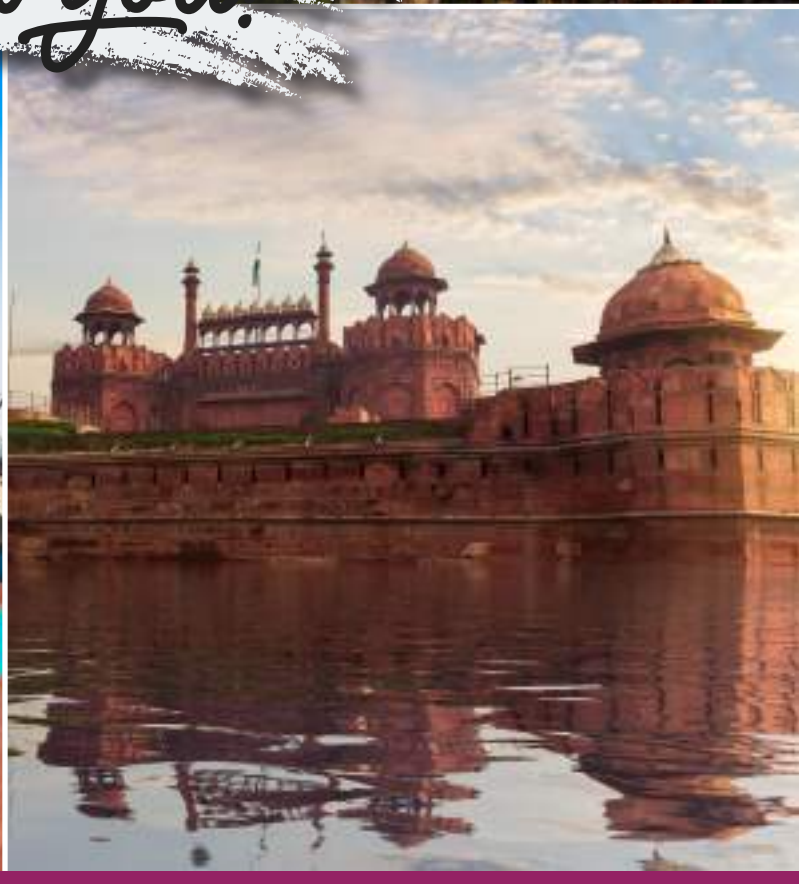

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