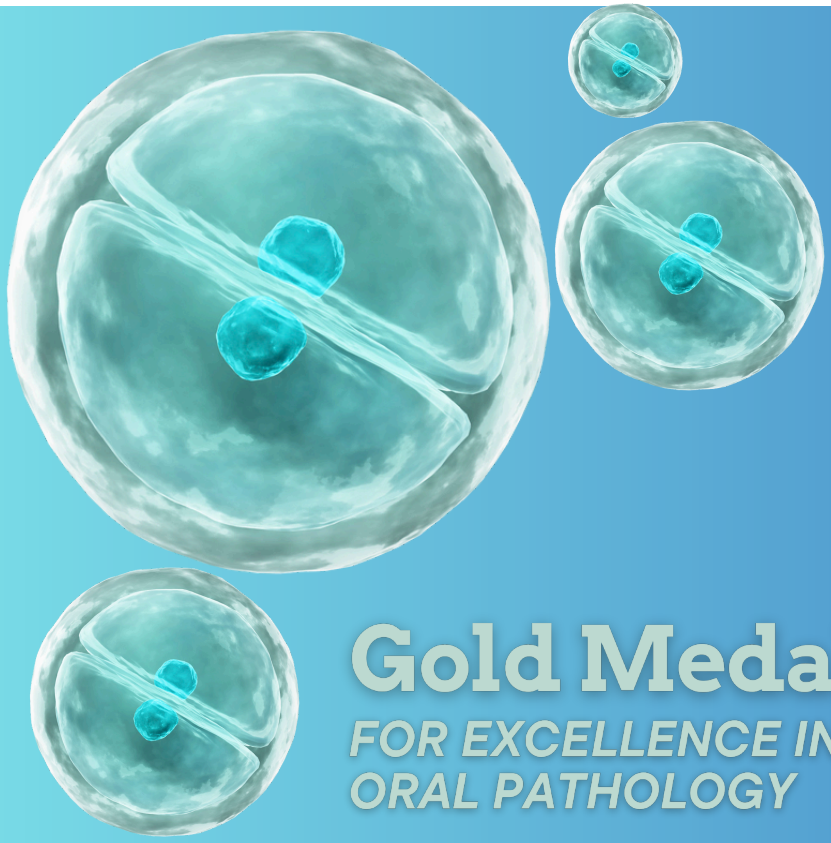
POPMA
PRACTICING ORAL PATHOLOGISTS AND MICROBIOLOGISTS ASSOCIATION (REGD.)

Volume I, Issue I, Jan - Jun 2025

The Oral PATHOLOGIST™

An Initiative by POPMA



POPMA highlights

MEMBERSHIP AND SCHOLARSHIPS

Gold Medal

FOR EXCELLENCE IN ORAL PATHOLOGY

FELLOWSHIP COURSE AND OBSERVERSHIP PROGRAMME

ACADEMY OF ORAL PATHOLOGY AND LABORATORY MEDICINE (AOPLM)

www.magazine.popma.in

POPMA

PRACTICING ORAL PATHOLOGISTS AND MICROBIOLOGISTS ASSOCIATION (REGD.)

Oral Pathology and Microbiology 2025: Changing narratives with fervor and gusto

Theme of oral pathology magazine indicates the change that should happen in our mind to change narrative of oral pathology where from no scope to full scope!

"It's not the opportunities we get, it's the opportunities we create"

Disclaimer
This magazine contains original, creative and abstract of published work and curated work submitted by individuals. The originality claim, genuineness and expression in such work is individual author's responsibility.

Editor-in- Chief

Editorial Board Members

Publisher

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NGO Unique ID of POPMA - HR/2024/0477820

Magazine Designed by - Dr. Rujuta Patil

Contact Us

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The Oral Pathologist™

Aim and Scope

The Oral Pathologist Magazine aims to serve as an opportunistic platform to increase the awareness about scope and importance of Oral Pathology in holistic approach towards diagnosing and managing diseases.

The Magazine also focuses to ignite the the fire of interest about the field of Oral Pathology among budding dentists, encourage them to pursue the same and build a successful career.

The Magazine caters to diverse areas of Oral Pathology discipline including hematology, biochemistry, immunology, serology, microbiology, oncology, histopathology and cytopathology.

The primary eight segments of Magazine include- All About POPMA, Showcase Your Published Paper, Aspire to Inspire, The Pathology World, Art of Oral Pathology, Book Review, Pride of POPMA and Students' Column.

From The EDITOR-IN- CHIEF

The field of Oral Pathology has been gaining increasing recognition in the medical community, as it plays a crucial role in the diagnosis and management of various oral and maxillofacial diseases. The rise in oral cancer incidence, coupled with advancements in treatment modalities, has highlighted the importance of specialized dental professionals who can provide comprehensive care to patients.

This issue of our esteemed publication aims to shed light on the evolving role of oral pathologists and the significant impact they have on the overall well-being of patients. The oral cavity is a gateway to the body, and the early detection and accurate diagnosis of oral lesions are essential for effective treatment and improved patient outcomes.

In this issue, we explore the multifaceted responsibilities of oral pathologists, from their involvement in the comprehensive management of oral cancer patients to their contributions in the development of novel diagnostic techniques and the advancement of research in this field.

Through insightful articles and case studies, we have delved into the challenges faced by oral pathologists, the strategies they employ to enhance the quality of life for their patients, and the ongoing efforts to increase awareness and recognition of this vital specialty.

As the editors of this publication, we are committed to fostering a platform that showcases the remarkable work of oral pathologists and their indispensable role in the healthcare system. We hope that this issue will inspire and educate our readers, ultimately leading to a greater appreciation for the expertise and dedication of these professionals.

Dr. Bhuvan Nagpal

BDS (Gold Medalist), MDS (Oral Pathology & Microbiology), MSc (Clinical Biochemistry),
PGT (Head & Neck Oncopathology), MBA (Healthcare Management), PGDMLS, LL.B, CLQMS,
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Managing Editor's Note

As the esteemed editor of ‘The Oral Pathologist’ Magazine, it is with great pleasure that I present to our readers the first edition, which promises to be a captivating and enlightening exploration of the diverse and ever-evolving field of oral pathology.

Through the carefully curated content within these pages, we aim to provide our valued readers with a comprehensive understanding of the cutting-edge research, innovative technologies, and emerging trends shaping the landscape of oral pathology. As always, we extend our sincere gratitude to the contributors, both established experts and promising young scholars, whose dedication and insights have enriched this edition.

We are confident that this issue of 'The Oral Pathologist' Magazine will captivate and inspire our readers, fostering a deeper appreciation for the art and science of oral pathology.

In our ongoing efforts to elevate the discourse within the field of oral pathology, we are pleased to feature a collection of esteemed authors who have lent their expertise to this issue. We forsee this magazine to become a valuable inspirational tool for oral pathologists and thus aid in the upliftment of this dental speciality.

Dr. Rujuta Patil

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Oral Cancer Screening Consultant, Government of India Certified
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Managing Editor's Note

Dear Colleagues,

I celebrate the official launch of the first issue of "The Oral Pathologist" with immense pleasure and humility. I sincerely welcome the readers of this magazine on behalf of the Editorial Team. Additionally, I want to express my gratitude to our pioneer association, The Practicing Oral Pathologists and Microbiologists Association (POPMA), for unwavering support and encouragement in bringing out this issue. I sincerely thank our distinguished editorial board and esteemed contributors for their voluntary efforts to support the magazine's success.

Showcasing and acknowledging the multidimensional facets of Oral Pathology and allied disciplines is our primary objective. This magazine will serve as an ideal forum for addressing new clinical, diagnostic, and therapeutic advancements in Oral Pathology. We genuinely hope that readers will find the scientific compositions engaging, pertinent, and thought-provoking, which will help them develop a variety of perspectives on the current scenario in dentistry.

I hope that this issue will stimulate your curiosity and provide you with valuable insights about recent scientific breakthroughs in the realm of Oral Pathology. I am confident that this periodical would be very beneficial not only for dental professionals but also for undergraduate and postgraduate students. We are dedicated to publishing all results, approaches, resources, and reviews that make a substantial contribution to Oral Pathology. We appreciate your input and hope to hear from you soon!

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POPMA

PRACTICING ORAL PATHOLOGISTS AND MICROBIOLOGISTS ASSOCIATION (REGD.)

Oral Pathology and Microbiology

Oral Pathology (also known as oral and maxillofacial pathology/head and neck pathology) is a specialized field of pathology dealing with the diseases of oral cavity and its associated structures (i.e., teeth, tongue; bony tissue [maxilla and mandible]; joint [temporomandibular joint]; lymph nodes; nerves; structures in neck and blood vessels of the ear, nose and throat [pharynx and larynx]).

THE PRACTICE OF ORAL AND MAXILLOFACIAL PATHOLOGY & ORAL MICROBIOLOGY

includes diagnosis of diseases using clinical, radiographic, microscopic, hematological, biochemical, microbiological, immunological, ultrastructural or other molecular/genetic examinations.

According to the Medical Council of India (MCI), dentistry is one of the recognized branches of modern scientific medicine and taught during Phase III of MBBS curriculum as a part of surgery. Dentistry is the 29th broad medical specialty as per National Medical Commission (NMC), Teachers Eligibility Qualifications in Medical Institutions Regulations, 2022. As per the Dental Council of India (DCI), oral pathology and microbiology is one of the nine recognized specialties under dentistry. Therefore, oral pathology is not only a branch of dentistry but also of pathology and, in turn, related to medicine. Like other branches of pathology, oral & maxillofacial pathology is also a recognized international specialty of pathology, and this fact has already been acknowledged by the Royal College of Pathologists, United Kingdom.

VISION AND MISSION OF POPMA

Vision

Uniting And Empowering Oral Pathologists In India

Mission

- To promote the specialty practice of oral and maxillofacial pathology & oral microbiology.
- To promote oral pathology & microbiology as a career by making MDS Oral pathology & microbiology degree as one of the requisite qualifications to sign the laboratory reports/authorized signatory for lab reports.
- To elevate the scientific and professional status of this specialty of dentistry/medicine/pathology.
- To represent and promote the value of oral pathology & microbiology to other medical and dental organizations, legislative bodies and government agencies.

POPMA MEMBERSHIP

Experience the thrill of becoming a member of POPMA, where your practice and confidence will soar to new heights! By joining our esteemed community, you will unlock a world of opportunities to enhance your professional journey.

ELIGIBILITY CRITERIA

- Candidate must be of Indian origin and should be 21 years or above at the date of enrollment
- Candidate must hold a professional (bachelors or masters or doctoral degree) in any of the below mentioned disciplines:

1. Oral Pathology & Microbiology
2. Medicine
3. Dentistry
4. Pathology
5. Biochemistry
6. Microbiology
7. Laboratory Medicine
8. Forensic Medicine & Odontology
9. Biotechnology
10. Biomedical & Engineering Sciences
11. Veterinary Sciences

- (BDS/MDS/MBBS/MD/DCP/MS/DNB/DM/MCh/BVSc /MVSc/BTech/MTech/BSc/MSc/PhD) from recognized universities and respective medical/dental/veterinary councils/AICTE/UGC.
- The candidate must have active interest in the practice/teaching/research of oral and maxillofacial pathology & oral microbiology.
- Candidate must not have been convicted of an offence involving moral turpitude and imprisonment.

MEMBERSHIP

POPMA MEMBERSHIP

- Platform of pan India networking with specialty practicing oral pathologists
- Platform where oral pathologists can share their problems/issues faced during their routine specialty practice of oral & general pathology
- Platform for skill enhancement by easy access to fellowship/observership certificate courses offered by the academic body of POPMA
- Guidance regarding establishment of new oral and general pathology lab/diagnostic centre
- Research Grants in Oral & Maxillofacial Pathology and its associated fields
- Preference in Awards for excellence in the field of Oral Pathology and Microbiology for both BDS & MDS students
- Support for advocacy and representation for Oral Pathologists to various government and legislative bodies

The Admission Fee and the Annual Subscription Fees payable by different types of members are: The Membership fee and the annual subscription shall be as under:

Type of Member	Admission Fee	Annual Subscription
1. Life Member	Rs 3100/-	-
2. Ordinary Member	Rs 1100/-	Rs 200/-

Bank details for online payments:
Account Name: Practicing Oral Pathologists & Microbiologists Association
Bank's Name: Canara Bank, Urban Estate -II, Hisar, Haryana - 125001
Account Number: 110150477222
RTGS/NEFT/IFSC Code: CNRB0002990

MEMBERSHIP KIT

1. Certificate of membership
2. Receipt of the payment
3. Identity card
4. POPMA badge

ADVISORS OF POPMA

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BDS, MDS, FDS-RCPS (Glasgow)
Specialist in Oral Pathology- Oral Medicine- Dental Surgeon
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Govt. Dental college and Hospital, Raipur

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BDS, MDS (Oral Pathology)
Sr. Oral Pathologist
RootCoz Diagnostics
Sainik Farms, New Delhi

POPMA

PRACTICING ORAL PATHOLOGISTS AND MICROBIOLOGISTS ASSOCIATION (REGD.)

FOUNDING GOVERNING BODY MEMBERS

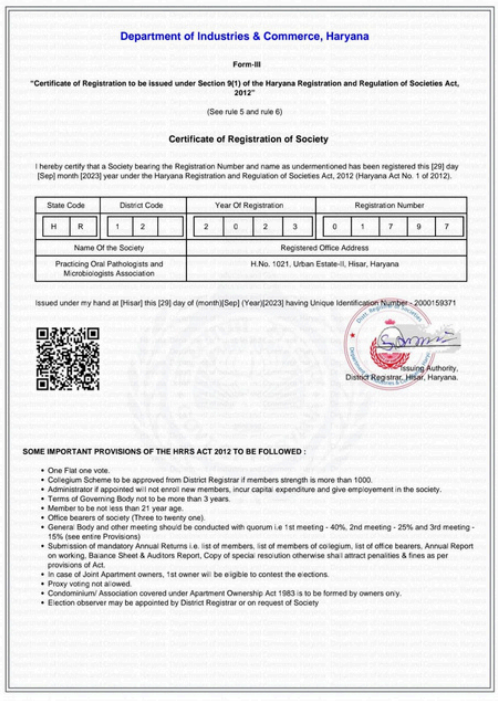
POPMA

- Dr. Bhuvan Nagpal (President)
- Dr. Anupam Kalra (Vice President)
- Dr. Priyanka Mittal (Secretary)
- Dr. Amber Agarwal (Joint Secretary)
- Dr. Anuj Kalra (Treasurer)
- Dr. Raman Mittal (Executive Member)
- Dr. Ravinder Nath (Executive Member)

POPMA and AOPLM

Registered under section 9(1) of the Haryana Registration and Regulation of Societies Act, 2012 with Registration no. HR/12/2023/01797 dated 29th September 2023. Academy of Oral Pathology & Laboratory Medicine (Under the aegis of Practicing Oral Pathologists & Microbiologists Association)

NGO Unique ID of POPMA – HR/2024/0477820; Dated 19-12-2024



Department of Industries & Commerce, Haryana

Form-III

"Certificate of Registration to be issued under Section 9(1) of the Haryana Registration and Regulation of Societies Act, 2012"

(See rule 5 and rule 6)

Certificate of Registration of Society

I hereby certify that a Society bearing the Registration Number and name as undermentioned has been registered this [29] day [Sep] month [2023] year under the Haryana Registration and Regulation of Societies Act, 2012 (Haryana Act No. 1 of 2012).

State Code	District Code	Year Of Registration	Registration Number
H R	1 2	2 0 2 3	0 1 7 9 7

Name Of the Society	Registered Office Address
Practicing Oral Pathologists and Microbiologists Association	H.No. 1021, Urban Estate-II, Hisar, Haryana

Issued under my hand at [Hisar] this [29] day of (month)[Sep] (Year)[2023] having Unique Identification Number - 2000159371

Issuing Authority,
District Registrar, Hisar, Haryana.

SOME IMPORTANT PROVISIONS OF THE HRRS ACT 2012 TO BE FOLLOWED :

- One Flat one vote.
- Collegium Scheme to be approved from District Registrar if members strength is more than 1000.
- Administrator if appointed will not enroll new members, incur capital expenditure and give employement in the society.
- Terms of Governing Body not to be more than 3 years.
- Member to be not less than 21 year age.
- Office bearers of society (Three to twenty one).
- General Body and other meeting should be conducted with quorum i.e 1st meeting - 40%, 2nd meeting - 25% and 3rd meeting - 15% (see entire Provisions)
- Submission of mandatory Annual Returns i.e. list of members, list of members of collegium, list of office bearers, Annual Report on working, Balance Sheet & Auditors Report, Copy of special resolution otherwise shall attract penalities & fines as per provisions of Act.
- In case of Joint Apartment owners, 1st owner will be eligible to contest the elections.
- Proxy voting not allowed.
- Condominium/ Association covered under Apartment Ownership Act 1983 is to be formed by owners only.
- Election observer may be appointed by District Registrar or on request of Society

12/19/24, 4:17 AM NGO Darpan

PRACTICING ORAL PATHOLOGISTS AND MICROBIOLOGISTS ASSOCIATION

Unique Id of VO/NGO	HR/2024/0477820
DARPAN Reg. Date	19-12-2024

Registration Details

Registered With	Registrar of Societies
Type of NGO	Registered Societies (Non-Government)
Registration No	HR/12/2023/01797
Act name	Haryana Registration and Regulation of Societies Act, 2012
City of Registration	Hisar
State of Registration	HARYANA
Date of Registration (Society / Trust / Entity)	29-09-2023

Office Bearers

Name	Designation
BHUVAN NAGPAL	President
ABHISHEK B	General Secretary
ANUJ KALRA	Treasurer

Sectors

Operational Sectors	Health & Family Welfare
Operational Area-States	HARYANA
Operational Area-District	HARYANA->Hisar

https://ngodarpan.gov.in/index.php/search/

AOPLM

ACADEMY OF ORAL PATHOLOGY & LABORATORY MEDICINE

About Academy of Oral Pathology and Laboratory Medicine (AOPLM)

- Oral Pathology (also known as oral and maxillofacial pathology/head and neck pathology) is a specialized field of pathology dealing with the diseases of oral cavity and its associated structures (i.e., teeth, tongue; bony tissue [maxilla and mandible]; joint [temporomandibular joint]; lymph nodes; nerves; structures in neck and blood vessels of the ear, nose and throat [pharynx and larynx]). The practice of oral pathology & microbiology includes diagnosis of oral and systemic diseases using clinical, radiographic, microscopic, hematological biochemical, microbiological, immunological, ultrastructural or other molecular/genetic examinations.
- Laboratory Medicine, is a clinical science and discipline, devoted to the quantitative measurement, or qualitative assessment of any substance that can be assayed in any type of biological fluid of any animal species, thus including humans, for either medical or research purposes. The results of these measurements are translated into actionable information for improving the care and/or maintaining the wellness of both a single individual and an entire population. Laboratory Medicine thus, is the application of 'Medicine' at the laboratory level. It deals with all the necessary investigations required for the diagnosis and management of patients. It includes selection, operation, and interpretation of diagnostic testing that uses primarily the specimens from patients, and contributes in clinical management, in addition to administrative, financial, teaching and research activities of the department.
- Academy of Oral Pathology and Laboratory Medicine (AOPLM) was constituted by Practicing Oral Pathologists and Microbiologists Association (POPMA) in 2023 to impart quality training in oral pathology and laboratory medicine to the members of POPMA. Currently, it's offering observership and fellowship course based on the duration of the course.
- Fellowship course is a module-based distance education programme which includes online modules and contact sessions including lectures, seminars and practical sessions. Fellowship course follows a detailed curriculum and provides extensive theoretical knowledge (mostly distance education) and specific practical skills (laboratory hands-on) in oral pathology and laboratory medicine along with basic knowledge required in associated subjects.
- AOPLM Fellowship certification requires assessment and theoretical knowledge through conduct of practical examination on completion of the training and, if found proficient, shall award enrolled candidates with the Fellowship/Observership by the Academy of Oral Pathology and Laboratory Medicine.

The vision of the academy is:

- To impart training of qualified professionals in niche areas of diagnostic oral pathology and laboratory medicine.
- To support excellence in oral pathology and laboratory medicine and in doing so, enhance patient outcomes.
- Improving oral and general health of the community through specialized training of oral pathology professionals, translational research and improving quality of diagnostic centres.

Our Training Centres

TOHANA MANGLAM DIAGNOSTICS

Near RMC Hospital, Kainchi Chowk,
Chandigarh Road, Tohana, Dist. Fatehabad – 125120
Web: www.tohanamanglamdiagnostics.com

MG DIAGNOSTICS

Sapra Multispecialty Hospital,
Sector – 15, Rajgarh Road, Hisar

MANGLAM DIAGNOSTICS HANSI

Opp. Bus Stand, Delhi Road,
Hansi, Dist. Hisar – 125033

POPMA Committees, their Chair Person & Co-Chair Persons' List

1. Academic committee:

Chairperson – Dr. Bhuvan Nagpal
Co-ChairPerson: Dr. Ketki Kalele

2. Scientific Research Committee and Interview Board:

Chairperson – Dr. Bhuvan Nagpal
Co-ChairPerson – Dr. Ketki Kalele

3. Magazine Committee:

Chairperson – Dr. Abhishek Bhadranna
Co-ChairPerson – Dr. Arushi Pandey & Dr. Swapnita Patil

4. Letter Drafting Committee:

Chairperson – Dr. Abhishek Bhadranna
Co-ChairPerson – Dr. Bhuvan Nagpal

5. Oral pathology Advocacy Committee:

Chairperson – Dr. Bhuvan Nagpal
Co-ChairPerson – Dr. Ketki Kalele

6. Membership committee:

Chairperson – Dr. Shivani Mungala
Co-ChairPerson – Dr. Piyush Asnani

7. International Collaboration Committee:

Chairperson – Dr. Ketki Kalele
Co-ChairPerson – Dr. Bhuvan Nagpal

8. Conference Committee:

Chairperson – Dr. Abhishek Banerjee
Co-ChairPerson – Dr. Saikat Chakraborty
Dr. Shailja Chatterjee

9. Grievance Redressal committee:

Chairperson – Dr. Saikat Chakraborty
Co-ChairPerson – Divya Uppala

10. Career Counselling committee:

Chairperson – Dr. Bhuvan Nagpal
Co-ChairPerson – Dr. Swapnita Patil

11. Digital Library Committee:

Chairperson – Dr. Arushi Pandey
Co-ChairPerson – Dr. Vandana Shah

12. Constitutional Amendment Committee:

Chairperson – Dr. Saikat Chakraborty
Co-ChairPerson – Dr. Bhuvan Nagpal

13. Award Committee:

Chairperson – Dr. Abhishek Bhadranna
Co-ChairPerson – Dr. Bhuvan Nagpal

14. IT Assistance Committee:

Chairperson – Dr. Piyush Sharma
Co-ChairPerson – Dr. Shivani M

15. Finance Committee:

Chairperson – Dr. Anuj Kalra
Co-ChairPerson – Dr. Bhuvan Nagpal

POPMA WhatsApp Groups and Committees

To ensure effective communication and seamless sharing of updates, we have organized the following WhatsApp groups for each POPMA committee:

1. POPMA Members Notifications Only – For general updates and announcements to all members.

2. POPMA Governing Body (2024-2027) – For discussions and updates specific to the governing body.

3. POPMA Committees Chairpersons and Co-Chairpersons – For coordination among committee leaders.

4. POPMA Magazine Committee – For updates and discussions related to The Oral Pathologist™.

5. POPMA Conference Committee – For planning and updates on conferences.

6. POPMA Digital Library Committee – For initiatives and updates related to the digital library.

7. POPMA Career Counseling Committee – For discussions and updates on career guidance initiativews.

8. General Group – For informal discussions and updates open to all.

9. POPMA Oral Pathology Advocacy Committee – For updates on advocacy activities and initiatives.

10. POPMA Awards Committee – For discussions and updates on awards and recognitions.

11. POPMA State Representatives – For coordination with state-level representatives.

12. POPMA Scientific Research and Interview Board – For updates on research and intervies.

13. POPMA Academic Committee – For academic initiatives and discussions.

14. POPMA International Collaborations Committee – For updates on global collaborations.

15. POPMA Membership Committee – For updates on membership-related matters.

16. POPMA Constitution Amendment Committee – For discussions on constitution amendments.

17. POPMA IT Assistance Committee – For updates and support on IT-related initiatives.

18. POPMA Grievance Redressal Committee – For addressing member grievances effectively.

19. POPMA Financial Committee – For updates on financial matters and budget planning.

These groups have been created to facilitate updates and ensure smooth communication among all committee members.

Warm regards,
Dr. Bhuvan Nagpal
Founder and President, POPMA

Scientific Research Committee

The role of Scientific Research Committee (SRC) and Interview Board (IB) of POPMA is:

- Scientific Research Committee (SRC) will scrutinize the individual applications for POPMA Research Grant for MDS students and POPMA Gold Medal.
- Interview Board (IB) will conduct interviews for fellowship course and observership program of AOPLM.
- Out of all the constituent members of SRC and IB of POPMA, an interview panel of 5 members will be created who will conduct interview for the candidates who have applied for fellowship course, observership program, POPMA Research Grant and POPMA Gold Medal. Everytime, whenever an interview will be scheduled, the set of interviewers in an interview panel will be different but will be chosen from the constituent members of SRC & IB of POPMA on volunteer and rotational basis.

Specialists In POPMA (Multi-Disciplinary Board)

1. Oral Pathologist & Microbiologist
2. General Pathologist
3. General Microbiologist
4. General Biochemist
5. General Anatomist
6. General Radiologist
7. Oral Medicine & Radiologist
8. Oral & Maxillofacial Surgeon
9. Periodontologist
10. Forensic Odontologist
11. Biotechnologist
12. Nutritionist
13. Dermatologist
14. Anesthesiologist
15. Gynecologist & Obstetrician
16. Healthcare Administrator
17. IT/ Artificial Intelligence/ Digital Imaging

Legal Cell

1. Adv. Mrinmoi Chatterjee
2. Adv. Varun Dev Mishra
3. Dr. Bhuvan Nagpal
4. Dr. Divya Uppala

IT CELL

1. Dr. Piyush Sharma
2. Dr. Anuj Kalra
3. Dr. Srishti Arora
4. Dr. Nikita Mungala
5. Dr. Shivani Mungala

- **POPMA Research grant Scheme** for MDS students, primarily aiming at promoting good quality research in department of Oral Pathology & Microbiology.
- This Scheme is to encourage, nurture and support ideas, innovations and novel projects in the subject.
- One Research project for MDS Student with grant in aid up to **15,000** rupees each for project period with an observation not less that 12 months.
- One receipt of the application will be evaluated by " **Scientific Research Committee of POPMA**" constituted by governing body of POPMA

POPMA GOLD MEDAL

MERIT SCHOLARSHIP AWARD FOR MDS ORAL PATHOLOGY STUDENTS
"POPMA GOLD MEDAL FOR EXCELLENCE IN ORAL PATHOLOGY"

- POPMA endeavors to recognize & reward MDS students for their meritorious achievements in the specialty of Oral Pathology & Microbiology.
- The Merit Scholarship Award is an incentive as well as encouragement to the meritorious students who have achieved highest marks in Oral Pathology postgraduation.
- The purpose of this award is to support MDS students who have demonstrated academic excellence in oral pathology and microbiology.

Eligibility
Students desirous of getting the Scholarship should be a postgraduate student of Oral Pathology & Microbiology and, more importantly, a POPMA Member.

Documents Required:

- Attested copy of the marksheet and provisional degree certificate.
- Letter from the Dean/Principal stating the rank of the student on College letterhead in the department of Oral Pathology.
- Candidate's Profile/Resume.
- POPMA Membership Card and Certificate.

POPMA GOLD MEDAL

MERIT SCHOLARSHIP AWARD FOR MDS ORAL PATHOLOGY STUDENTS
"POPMA GOLD MEDAL FOR EXCELLENCE IN ORAL PATHOLOGY"

Rules and Regulations:

- This scholarship will be termed as "POPMA Gold Medal for Excellence in Oral Pathology".
- Merit Certificate, a Medal of Honor and Scholarship of Rs. 5000/- will be awarded annually to MDS student members of POPMA securing highest aggregate marks in MDS University Examination.
- The Merit Award will be awarded to only those Students who are the members of POPMA.
- The students who have cleared the academic examination in the first attempt will only be eligible for this award.
- Applications/Nominations filed by MDS students will be scrutinized by Scientific Research Committee
- In case, there are no deserving candidates who are eligible according to the mentioned conditions, the award may not be given. POPMA will have the final authority to decide on the grant of award.
- The award will be sent directly to the student winner.
- Any violation of the above regulations will automatically disqualify the student

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by Shivam Madaan — February 8, 2024

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Empowering Oral Pathologists: The Mission of POPMA in India

POPMA IN ACTION

Letters sent by POPMA to Government authorities and legislative bodies

1. 1st August 2024
To: Shri J. P. Nadda ji (Hon. Health Minister)
Subject: Recognition of M.D.S. Degree Holders.
Brief: Requests M.D.S. (Oral Pathology) inclusion in Clinical Establishment Rules for authorized signatories and recruitment.

2. 1st August 2024
To: Shri Narendra Modi ji (Hon. Prime Minister)
Subject: Recognition of M.D.S. Degree Holders.
Brief: Requests M.D.S. (Oral Pathology) inclusion in Clinical Establishment Rules for authorized signatories and recruitment

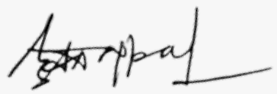
3. 14th August 2024
To: Hon. Health Minister, Sh. J.P. Nadda ji
Subject: Condemnation of Doctor's Murder in Kolkata.
Brief: POPMA condemns the tragic incident and urges safety measures for healthcare professionals.

4. 14th August 2024
To: Hon. Home Minister, Sh. Amit Shah ji
Subject: Condemnation of Doctor's Murder in Kolkata.
Brief: POPMA condemns the tragic incident and urges safety measures for healthcare professionals.

5. 14th August 2024
To: Hon. Prime Minister, Sh. Narendra Modi ji
Subject: Condemnation of Doctor's Murder in Kolkata.
Brief: POPMA condemns the tragic incident and urges safety measures for healthcare professionals.

6. 20th September 2024
To: Dr. Pilar Gándara Vila (IbAOPM President)
Subject: Endorsement for IbAOPM Scientific Meeting.
Brief: POPMA supports the XIX Scientific Meeting in Argentina (2025).

7. 28th November 2024
To: Dental Council of India (DCI)
Subject: Inclusion of M.D.S. (Oral Pathology) in Recruitment Criteria.
Brief: Advocates for M.D.S. degree holders' eligibility in pathology labs, cancer centers, and medical institutions.



Dr Bhuvan Nagpal
Founder - President, POPMA

POPMA IN ACTION

8. 28th November 2024
To: Dr. Ashok Dhoble (Secretary General, IDA)
Subject: Support for Promoting Oral Pathology.
Brief: Seeks IDA's support for the recognition of oral pathology and its importance in diagnostics.

9. 28th November 2024
To: President, Indian Dental Association (IDA)
Subject: Advocacy for Oral Pathology.
Brief: Requests promotion of oral pathology within the broader dental healthcare system.

10. 19th December 2024
To: Dental Council of India (DCI)
Subject: Violation of DCI Guidelines and Neglect of Oral Pathology.
Brief: Highlights absence of oral pathologists in government dental colleges in Patiala and Amritsar.

11. 19th December 2024
To: Ministry of Health and Family Welfare
Subject: Violation of DCI Guidelines.
Brief: Seeks intervention for non-compliance with DCI guidelines in government dental colleges.

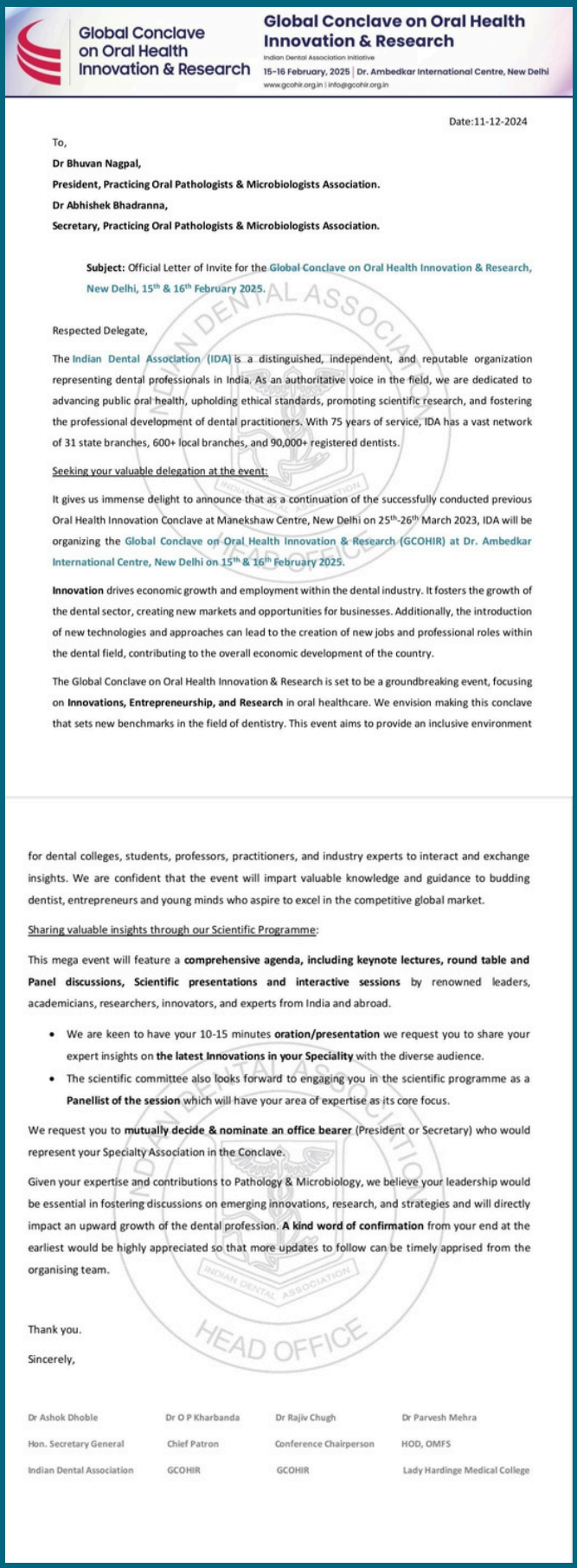
12. 19th December 2024
To: IDA President and Secretary General
Subject: Advocacy for Oral Pathologists' Role.
Brief: Requests IDA's support for the inclusion and recognition of oral pathologists.

13. 19th December 2024
To: National Tobacco Control Cell (NTCC)
Subject: Proposal for Collaboration.
Brief: Proposes partnership to address tobacco-related oral diseases and promote early detection.

14. 28th November 2024
To: President, Indian Dental Association (IDA)
Subject: Endorsement of Oral Pathology.
Brief: Advocates for more awareness and educational initiatives for oral pathology in clinical and academic spaces.

Dr Bhuvan Nagpal
Founder - President, POPMA

LETTER



Global Conclave on Oral Health Innovation & Research

Indian Dental Association Initiative

15-16 February, 2025 | Dr. Ambedkar International Centre, New Delhi

www.gcohir.org.in | info@gcohir.org.in

Date:11-12-2024

To,

Dr Bhuvan Nagpal,
President, Practicing Oral Pathologists & Microbiologists Association.
Dr Abhishek Bhadranna,
Secretary, Practicing Oral Pathologists & Microbiologists Association.

Subject: Official Letter of Invite for the Global Conclave on Oral Health Innovation & Research, New Delhi, 15th & 16th February 2025.

Respected Delegate,

The Indian Dental Association (IDA) is a distinguished, independent, and reputable organization representing dental professionals in India. As an authoritative voice in the field, we are dedicated to advancing public oral health, upholding ethical standards, promoting scientific research, and fostering the professional development of dental practitioners. With 75 years of service, IDA has a vast network of 31 state branches, 600+ local branches, and 90,000+ registered dentists.

Seeking your valuable delegation at the event:

It gives us immense delight to announce that as a continuation of the successfully conducted previous Oral Health Innovation Conclave at Manekshaw Centre, New Delhi on 25th-26th March 2023, IDA will be organizing the Global Conclave on Oral Health Innovation & Research (GCOHIR) at Dr. Ambedkar International Centre, New Delhi on 15th & 16th February 2025.

Innovation drives economic growth and employment within the dental industry. It fosters the growth of the dental sector, creating new markets and opportunities for businesses. Additionally, the introduction of new technologies and approaches can lead to the creation of new jobs and professional roles within the dental field, contributing to the overall economic development of the country.

The Global Conclave on Oral Health Innovation & Research is set to be a groundbreaking event, focusing on **Innovations, Entrepreneurship, and Research** in oral healthcare. We envision making this conclave that sets new benchmarks in the field of dentistry. This event aims to provide an inclusive environment for dental colleges, students, professors, practitioners, and industry experts to interact and exchange insights. We are confident that the event will impart valuable knowledge and guidance to budding dentist, entrepreneurs and young minds who aspire to excel in the competitive global market.

Sharing valuable insights through our Scientific Programme:

This mega event will feature a **comprehensive agenda, including keynote lectures, round table and Panel discussions, Scientific presentations and interactive sessions** by renowned leaders, academicians, researchers, innovators, and experts from India and abroad.

- We are keen to have your 10-15 minutes **oration/presentation** we request you to share your expert insights on **the latest Innovations in your Speciality** with the diverse audience.
- The scientific committee also looks forward to engaging you in the scientific programme as a **Panellist of the session** which will have your area of expertise as its core focus.

We request you to **mutually decide & nominate an office bearer** (President or Secretary) who would represent your Specialty Association in the Conclave.

Given your expertise and contributions to Pathology & Microbiology, we believe your leadership would be essential in fostering discussions on emerging innovations, research, and strategies and will directly impact an upward growth of the dental profession. **A kind word of confirmation** from your end at the earliest would be highly appreciated so that more updates to follow can be timely apprised from the organising team.

Thank you.

Sincerely,

Dr Ashok Dhoble	Dr O P Kharbanda	Dr Rajiv Chugh	Dr Parvesh Mehra
Hon. Secretary General	Chief Patron	Conference Chairperson	HOD, OMFS
Indian Dental Association	GCOHIR	GCOHIR	Lady Hardinge Medical College

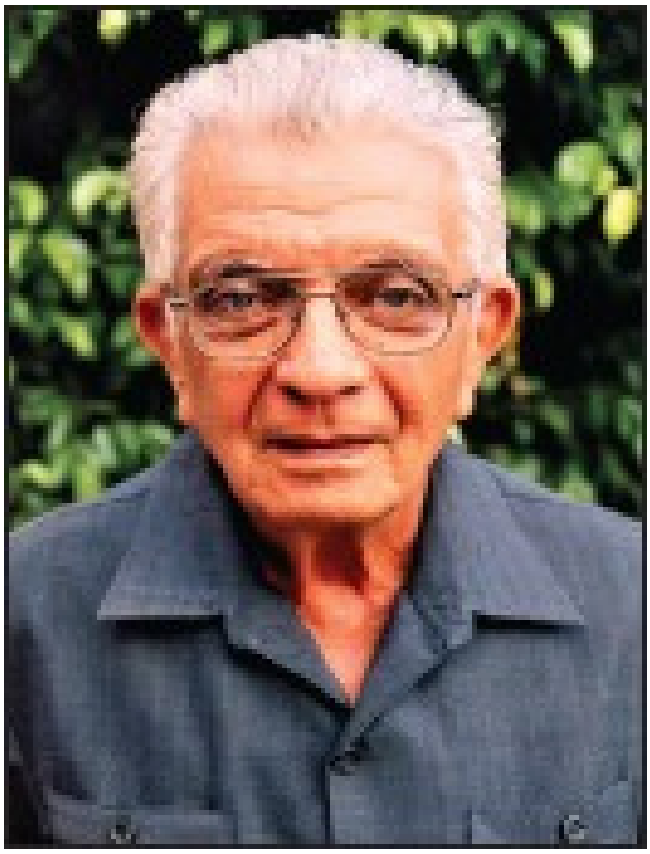
Proud Moment for POPMA

2024

It's with immense pride and gratitude that we share a major milestone for POPMA. The Indian Dental Association (IDA)—the authoritative voice for dental surgeons in India—has officially recognized our association and invited us to represent at the Global Conclave on Oral Health Innovation & Research, February 2025.

This incredible achievement reflects the trust, dedication, and collective efforts of every member. Together, we are shaping the future of Oral Pathology and Microbiology and gaining the recognition we deserve.

Congratulations to each one of you for being part of this journey! Let's continue striving for excellence and making meaningful contributions to oral healthcare in India.



Dr. H. M. Dholakia

"MASTER OF CLASSIFICATION"

FIRST POSTGRADUATE ORAL PATHOLOGY TEACHER IN INDIA

Dr. Harnath Manishankar Dholakia, was born on February 25, 1926, at Mumbai. He completed his LDSc in 1947, from Nair Hospital Dental College, Mumbai and also received LDRSc from Royal College of Surgery in 1949.

Since establishing the first postgraduate course in oral pathology at Nair Hospital Dental College in Mumbai in 1960, Dr. Dholakia has the unique distinction of being the first postgraduate instructor in India. As a postgraduate educator, he guided innumerable colleagues as they navigated the field.

This modest professor didn't have any lab apparatus or teaching aids to use when he first started at NHDC. He did, however, borrow microscopes from the Department of General Pathology because he was so passionate about teaching. He created around 7000 teaching slides with little technical assistance by gathering specimens and conducting experiments on tissues and organs that had been biopsied and autopsied.

He also served as the First president of the Indian Association of Oral and Maxillofacial Pathologists.

Oral Pathologists: Guardians of the Unseen

In the silent light of the microscope's gaze,
Oral pathologists uncover life's hidden maze.
From stained tissues to cells so fine,
Decoding mysteries, line by line.

With every biopsy, they silently stay,
Shedding light on diseases that threaten the day.
Guiding treatments, offering hope a new,
Their tireless work shaping what we pursue.

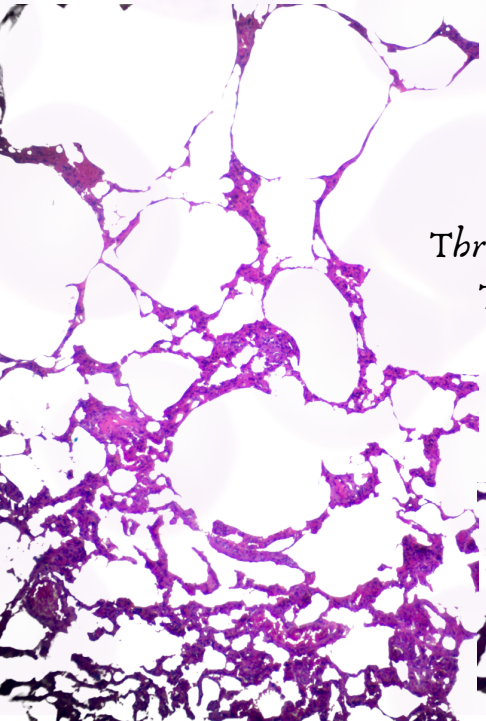
Behind each slide, their wisdom shines,
Tracing every lesion, every sign.
Collaborating with doctors, hand in hand,
To heal and protect across the land.

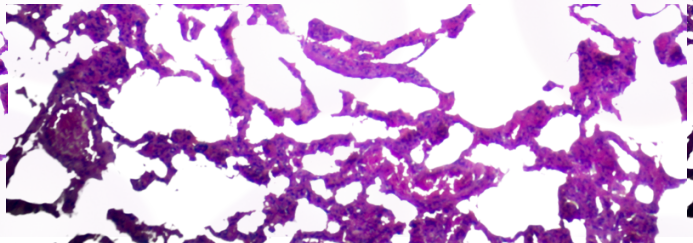
When challenges strike, they're the ones to call,
Standing steadfast, giving their all.
With courage, knowledge, and endless care,
They guard the smiles and lives we share.

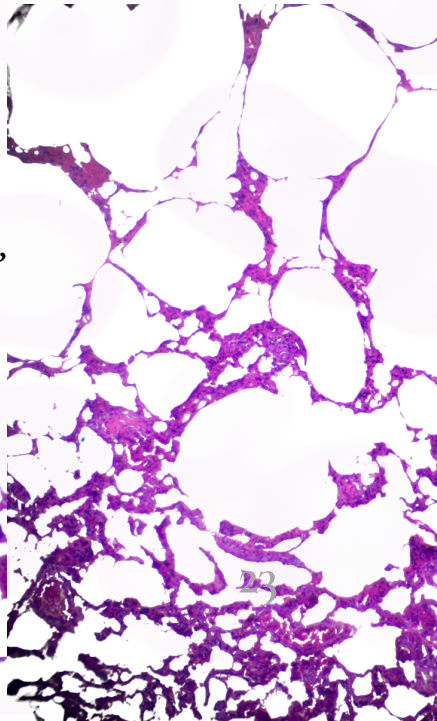
Through every strain, each stain, they fight,
Pathologists of oral health, our guiding light.
In labs they dwell, unseen yet supreme,
Guardians of health, fulfilling the dream.

For the ones in white, a tribute we sing,
Oral pathologists, the hope they bring.
Through dedication, precision, and steadfast might,
They battle in silence, keeping futures bright.

Dr. Bhuvan Nagpal







TUMOR DESPACITO

Wondering what are oral pathologist's jobs?
Well, they say 'We are dental snobs';
We help dentists to make a choice,
We help them diagnose and give cells a voice.
Come on over, look at this section
We've got here for a microscope session,
Let's turn every case into a lesson,
A lesson on Tumor despacito and progresio'.
The columnar cell looks quite well,
Its nuclei likes the ground,
In many layers, it's been found;
It's not as wide as it is tall,
Secreting stuff as it has nuclei ball.
When it is troubled for long,
It can't breathe and looks hazy,
It's active life has become lazy;
It can't stand tall amidst all that,
It's now going all flat.
The nuclei doesn't look happy anymore,
They seem to be troubled at their core;
They are going angrier and dark,
I think they might be waiting for radiospark.
The neighbouring cells heard a rumor,
They think they've got a tumor.

Dr. Srishti Arora
-MDS (Oral & Maxillofacial Pathology)
-Consultant at Center for Oral Pathology and Maxillofacial Diagnostics (C-OPMD), Hisar Haryana

The Evolving Landscape of Oral Pathology, Then and Now

DR. DINESH K. DAFTARY,
M.D.S, FDS-RCPS (Glasgow)
Specialist in Oral Pathology- Oral Medicine- Dental Surgeon
Former Professor, Nair Hospital Dental College, Mumbai
Former Consultant, Tata Institute of Fundamental Research, Mumbai

It is with great honor and privilege that I pen the editorial for a new visionary group of the Practicing Oral Pathologists and Microbiologists Association (POPMA).

As someone who has witnessed the journey, of Oral Pathology over the last six decades, I consider it a pleasure to write my perception and observations.

The Yesteryears, of Oral Pathology did encompass in a significant manner, all important clinical arm. The examination of oral mucosa also became the prime responsibility for clinical evaluation of oral lesions inclusive of oral manifestation of systemic diseases.

This had special relevance in our country where oral cancer is a major health problem, which has been there since long and is present in a big way even now. oral cancer and oral precancer became an important area of the commitment for us, resulting in in a great way the effective and important contributions by many of our specialty group. In a similar context one can view our path breaking international study of oral precancer---oral cancer.

The Tata Institute of Fundamental Research study of ours of those years, initiated way back in 1966, supported by National Institute of Health, Bethesda. USA (30+ years) greatly helped establish understanding of oral precancer-oral cancer relationship, thus paving the way of bringing preventive oncology in the forefront with complete acceptance and recognition by the medical profession, inclusive of cancer hospitals, too. It was for the first time ever an Oral Precancer Registry was established. A distinguished honor also was awarded by WHO in recognizing our unit as WHO collaborating Centre of Prevention of oral precancer-cancer. The gutka ban in Maharashtra by Food and Drug Administration, was also a step in the right direction by the Government of Maharashtra, a direct fall out of our study. The significance of this study can be gauged by the fact that 30+ years of work' over 200000 population in 7 Indian states in the rural areas, resulting into large number of relevant publications, contribution of chapters in Text Books, 3 educational films with other various interventional inputs.

Oral pathologists had identity at a grass root level then, and they effectively participated in the healthcare measures in the mitigating serious problem of oral cancer of our country. Oral Pathology, now over the years has changed in many directions and has been evolving into a stem cell application, also in depth molecular study has brought our specialty the recognition much beyond the boundaries of our group. The science and scientific capital is now a great positive asset of our specialty.

Basic research is continuous process and is undertaken without necessarily looking at the thought of the practical ends and its relevant applications. Basic research is regarded as a pacemaker of technological progress. Molecular biology has yet to make a major contribution to understand early development (Dr Siddharth Mukherjee "The Emperor of Maladies").

Even the forensic odontology that was a great part, then, now reached greater heights with the advent of both technology as well as scientific input by our group. We are proud of our progress. It is a creditable journey that has carved out a niche amongst the scientists of various specialties all over the world.

But we cannot afford to ignore our country's major problem of oral cancer. we are not now miniscule number of professionals and collectively we owe it to society to do what we can do, to help control the disease Pathology of oral cancer. If we do not execute our job, it is an abuse of our privilege, of our duty and obligations.

We are not respectful, to our preferred status and responsibilities. Simply stating, we all need basic ethical literacy of the profession. In a recent guest editorial, Minal Chaudhary brings in the seriousness of the problem by quoting the report of International Agency for Research, that has predicted that the incidence of cancer in India will increase from 1 million in 2012 to 1.7 million by 2035. In India, oral cancer accounts for 30% of all cancers (J. of Oral Maxillofacial Pathology, Vol 27, Issue Jan–March 2023, pages 4–5).

Today we have Niagara of Knowledge, but it cannot be operative, at the primary level of intervention for oral precancer----cancer prevention programme. We may be over trained for such ground root level of intervention, and in a similar vein, we may be regarded as under trained for what we should be doing on oral precancer. It seems needle is not moving.

We need the intellectual honesty to bring back our clinical arm with the primary objective of reestablishing our Healthcare delivery into our study. We need to step out in the field, in the clinical world of patients, if that is being ignored then one can feel “Whither Oral Pathology Enough Evidence, Enough Clarity, and Directions”. Time to device health care delivery system.

We have the expertise and understanding of oral mucosa as a part of our learning process, as well as from our extensive TIFR study too. The word health seems to be out of Oral Pathology. We are more prone towards being cell pathologist, molecular biologist. Time to change this calm acceptance on our side.

We are at crossroads.
Time to bring our objective back into the mainstream. Time to reflect too. Today in the evolving landscape of Oral Pathology, the establishment of POPMA, by Dr Bhuvan Nagpal and his team to practice at the ground root level could help bring in a desired change. I wish Dr Nagpal well for his initiative, his creative efforts, and his visionary approach. The burden of the oral disease, particularly those linked to lifestyle and habits such as tobacco, pan masala use shall be a pressing concern for him and his creative team.

This is not the time to brush the oral cancer problem under the carpet, one can appreciate the administrative or academic (syllabus) road blocks, our own inertia, but our intent to bypass this should be reflected in our action plan. A fresh look is required for both class room teaching, academic settings, health care delivery system at ground level.

Today, we also can help in a big way the social awareness that would create an impact. Advertising world has created demand where none existed. Their voice is at the Zenith and our silence is at its peak, rendering “Stimulus”, leading to increased number of oral precancer cases. Corporate, Media world are great influencers, and they are all hostages of their thoughts.

Our advocacy almost nonexistent. If unchecked, the present shall imperceptibly emerge as the future, with possibility of our young population, described and recognized as “Demographic Dividend” may fall prey to the inevitable oral cancer/precancer pathology, and become “Demographic Disaster”. The “Pan Masala” culture of today is vying with equal presence to “Pop Culture” of the society.

It may require collaborative efforts with others, as well as joint inter disciplinary approach. The fraternity of dental profession and specialized groups like Oral Pathology and Oral Medicine can work effectively towards this strategic goal, then there may be possibly positive results happening in the coming years. At no stage, our voice has been raised or heard in the forum of the powers that may be. The silence is deafening and so also our inaction. It is a paradoxical observation that more we know about this pathology, less we do it.

I extend my sincere appreciation to POPMA, its leadership of Dr Nagpal and its members for their commitment to advancing Oral Pathology and Microbiology, as well as, undertaking the issues that are essential for our people and the country.

Today we are well established with our Indian Association of Maxillofacial Pathologists too. We have knowledge, we have clarity of purpose, and there is obvious need for us to control the problem of Oral Cancer. Need to focus with our “ EXPERTIUSE”.

Is PRIORITIZATION of ORAL PRECANCER for Prevention of ORAL CANCER a flippant
Objective?
We owe it to our people.

Oral Lichen Planus - An experience in Dental Clinic

Dr. Vinay Hazarey

MDS, MFDS-RCPS (Glasgow)
Consultant Oral Pathologist, Nagpur
Adjunct faculty- Dr. D.Y.Patil Dental College and Hospital, Pimpri, Pune

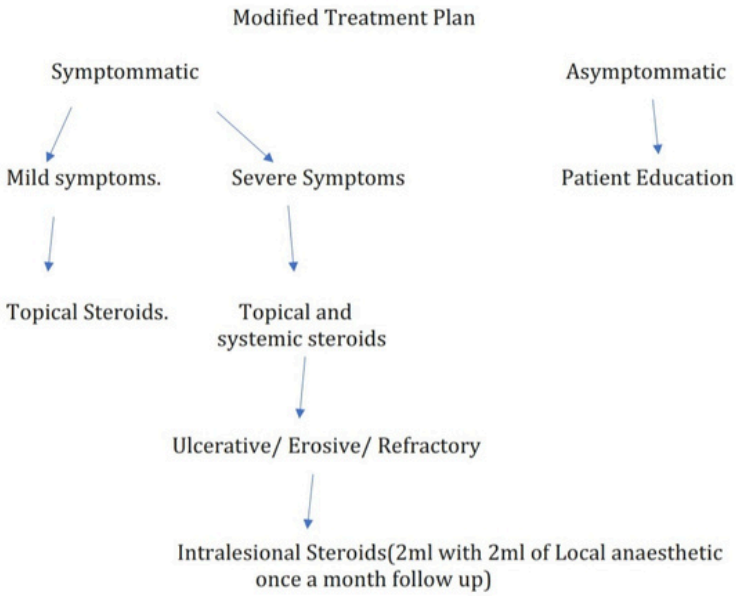
Oral lichen planus (OLP) is a non-infectious, immune-mediated, recurrent, chronic inflammatory, mucocutaneous disease, which is the reason for a high number of dental visits. The WHO recommended definition for OLP is “A chronic inflammatory disorder of unknown aetiology with characteristic relapses and remissions, displaying white reticular lesions, accompanied or not by atrophic, erosive and ulcerative and/or plaque type areas. Lesions are frequently bilaterally symmetrical. Desquamative gingivitis may be a feature”. According to reports, between 0.5% and 4% of people worldwide are impacted. OLP rarely affects children and is typically an adult condition. It is more common among women in their middle years.

Clinically OLP is of six types viz. reticular, atrophic, plaque-like, papular, erosive/ulcerative, and bullous. The most prevalent and well researched type of OLP is reticular and erosive. Reticular type has characteristic erythematous (red) borders and white lacy streak-like appearance Erythematous and atrophic patches encircled by thin, radiating keratotic striae are the hallmark of erosive OLP. The ulcerative subtype shows atrophic lesions with erythema background and superficial white striae at the margins, so it is generally a combination of atrophic-erosive type. Bullous type is most infrequently seen. The exact etiopathogenesis of LP is complicated, intricate, and uncertain.The four main areas implicated in the pathophysiology of LP include immune dysregulation, infections, environmental variables, and genetic factors.According to the information currently available, T-cell (Th1)-mediated targeting of basal keratinocytes is the main cause of LP, however other inflammatory cells may also be involved. Random-effects meta-analysis estimated an OLP malignant transformation rate of 0.2% (95%CI: 0.1-0.3%). The malignant transformation rate of OLP is likely to be lower than previously reported. Other confounding factors like smoking, alcohol abuse, hepatitis C infection and erosive or atrophic subtypes appear to have a greater rate of malignant transformation.

Clinical pictures of OLP pre-treatment

Clinical pictures of OLP post-treatment

Medical management of OLP is symptomatic and involves the suppression of signs and symptoms of the disease. Corticosteroids remains the first line of treatment in most of the cases. Triamcinolone acetonide is a topical corticosteroid most frequently used; Solutions of betamethasone disodium phosphate and clobetasone propionate are successfully used as a therapy for the diffuse form of OLP. Systemic steroids like methylprednisolone and prednisone are prescribed in doses of 1.5–2 mg/kg/day, gradually lowering the dose after clinical improvement. Antioxidants, Immunosuppresents like cyclosporin, tacrolimus, Retinoids, Dapsone, Antimalarial drugs , Interferons, Levamisole are also tried in many cases. Ayurvedic formulations like Glycyrrhizin (licorice), aloevera, curcumin are used along with Photodynamic therapy and PUVA (photochemotherapy) are also tried in refractory cases.



Acknowledgement:
Dr. Supriya Kheur
D.Y.Patil Dental College and Hospital, Pimpri, Pune

DR. USHA HEGDE

Dr. Usha Hegde, a professor at JSS Dental College in Mysuru, made history on May 19 at 6.10 a.m. when she became the first person from Mysuru and all of Karnataka to climb Mount Everest, the world's tallest peak at 29,031 feet.

At 52, Dr. Usha, a mother of two medical students and the spouse of an orthopedic physician, fulfilled her aim of achieving a position at the "top of the world." The only other female Karnataka mountaineer to reach the summit of Mount Everest in 2012 was Major Smitha Lakshman, a member of an Army squad. Mysuru mountaineers and adventure sports enthusiasts contend Dr. Usha is the first citizen to have achieved the "Himalayan feat." Despite her experience in endurance sports, Dr. Usha went on a few mountaineering trips to places like Ladakh, Uttarkashi, Nepal, and Africa, where she climbed Tanzania's Mount Kilimanjaro, Africa's highest peak at 19,340 feet, before aiming for the world's highest peak, Mount Everest. As she prepared to climb Mount Everest, Dr. Usha remembers juggling her responsibilities at home and as a professor of Oral Pathology and Microbiology at JSS Dental College in Mysuru.

In the first week of April 2024, she left Mysuru and flew from Bengaluru to Kathmandu, Nepal, before arriving in Lukla. After trekking for approximately eight days from Lukla, she arrived at the 17,598-foot Everest Base Camp. For acclimatization, she made a few climbs to the higher elevations of the neighboring mountains after spending roughly three weeks in the base camp. An advance crew that also plans their camping along the way had previously mapped out their path to Mount Everest.

She has not finished yet, though. Soon, she will begin training for the Boston Marathon. Dr. Usha seems to think of age as just a number and wishes for more women to follow their dreams and achieve greater success.

THE HINDU

(Extracted from: The Hindu, Published - June 28, 2024 06:22 pm IST)

Dr. Sharada P.

BDS, MDS (Oral Pathology)
Sr. Oral Pathologist,
Consultant Oral Pathologist
Oral-D Histopathology services powered by
Dr. Bhadranna's Oral Pathology, Bangalore

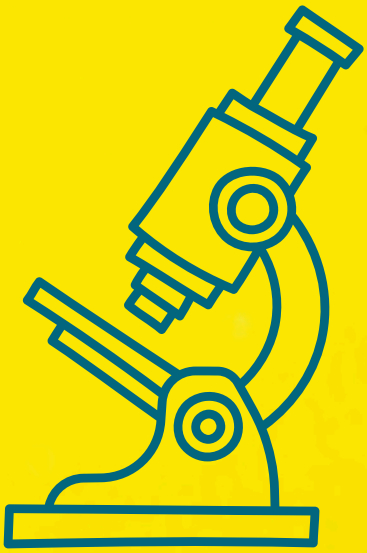
Dr. Sharda P. began a passionate career as a lecturer at HKES Dental College, Gulbarga, in 1988 after completing her undergraduate studies at Nair Hospital Dental College (Mumbai University) in 1984 and subsequently her postgraduation in 1987. From 1992 to 2007, she played a significant role in the development and growth of the Oral Pathology Department at VS Dental College & Hospital in Bangalore. In addition, she oversaw administrative duties as the PG Director and Vice-Principal of AECS Maaruti Dental College in Bangalore from 2007 to 2011. Her 33 years of extensive teaching experience attests to her commitment to education, which she has bestowed onto undergraduate, graduate, and doctoral students studying oral pathology. At Rajiv Gandhi University of Health Sciences (RGUHS), she holds the title of recognized PhD Guide.

She has demonstrated her administrative strength by participating in curriculum development workshops, reorganizing the rules for the BDS course, and serving on the RGUHS PhD Board of Studies from 2013 to 2015. She has also written chapters for Orban's Oral Histology and Embryology textbook in the 12th, 13th, 14th, and 15th editions, including Bone, Periodontal Ligament, and Cementum.

Her work with the Indian Association of Oral & Maxillofacial Pathologists (IAOMP) is a long and illustrious endeavor throughout her career. Being a life member, she served as the IAOMP's Vice President from 2013 to 2014 and its President from 2014 to 2015. In 2011, she received the IAOMP fellowship. Additionally, she is a member of the association journal JOMFP's advisory council. Additionally, in 2010, she attended the 3rd Annual Conference—Clinicoforensics in Coorg as a fellow of the National Foundation of Clinical Forensic Medicine (NFCFM).

Dr. Sharada is a modest individual, a highly driven educator, and an enthusiastic mentor. She is one of the few individuals who embodies simplicity. We sincerely appreciate her remarkable efforts to inculcate a strong sense of tenacity, optimism, and teamwork, all of which have contributed to the growth of Oral Pathology.

ART OF



ORAL PATHOLOGY

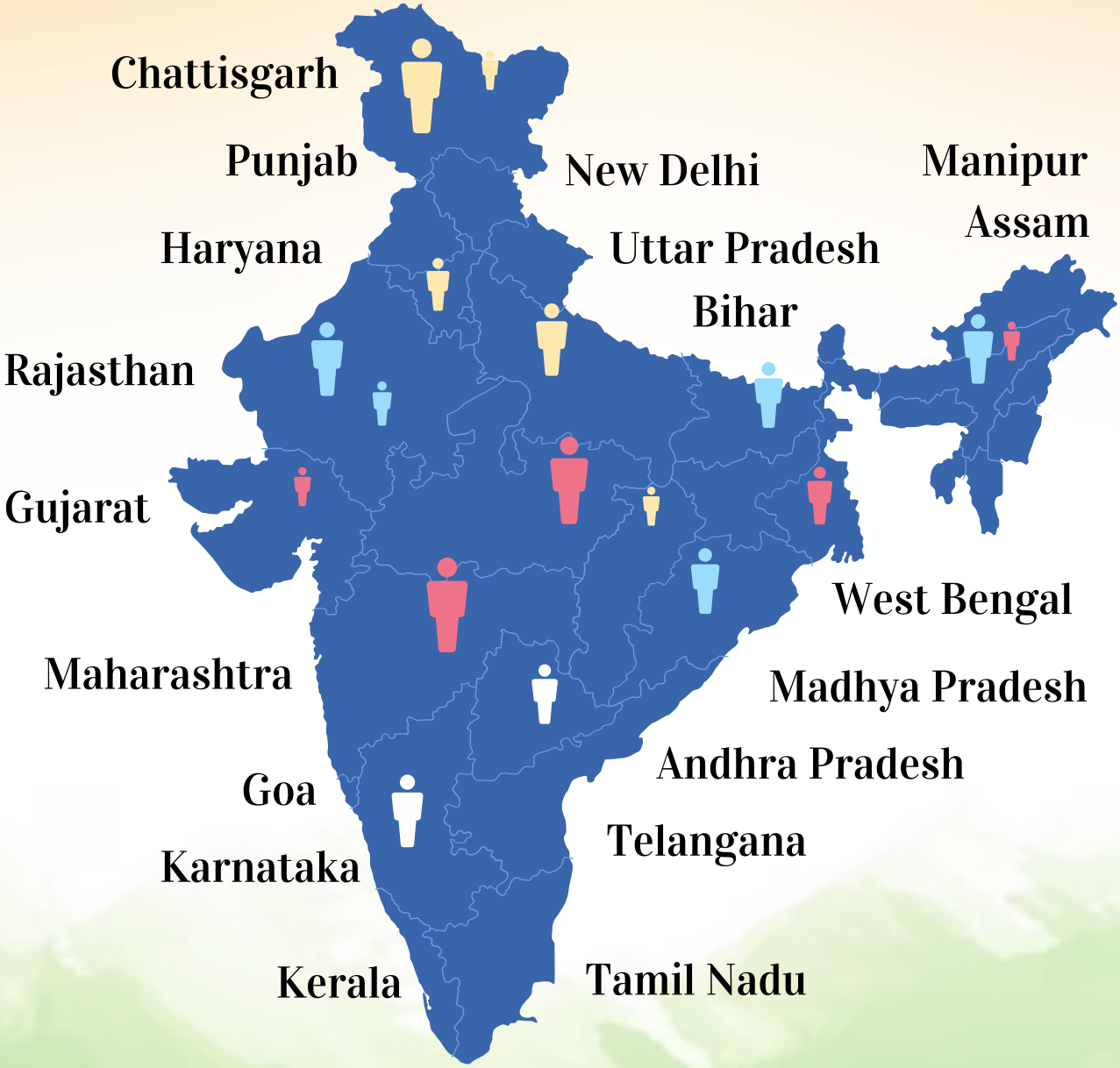
Forensic Oral Pathology

Anatomy of head and neck combined with forensic and oral pathology elements. The floral background depicts the human connection to nature.

DR. VANDANA MEENA

Intern RUHS CDS, Jaipur

19 POPMA State Representatives



Duties of POPMA State Representatives

- To represent POPMA at their state level.
- To promote the vision & mission of POPMA.
- To impart training and education in the field of oral pathology practice to the freshers along with our fellow colleagues who desire to learn.
- To address the problems faced by the Oral Pathologists of that particular state.
- To make new members based on merit along with the bylaws of POPMA.
- To motivate and encourage BDS students to pursue PG in Oral Pathology & Microbiology.
- To write letters (authorized by POPMA) to the government and legislative agencies of that particular state.
- To make representations to the government bodies, if needed.

HOPE

Helpline of Oral Pathology Enquiries

POPMA has created Helpline of Oral Pathology Enquiries (HOPE): +91-7027038190
Timings: 9 am to 7 pm (Monday to Saturday)

Any oral pathologist can call on the helpline no. for his queries related only to the specialty practice of Oral & Maxillofacial Pathology and it's allied aspects (histopathology, cytopathology & FNAC, hematology, clinical biochemistry, clinical pathology, infectious disease serology, immunology, microbiology, molecular pathology and genetic testing). Queries may include medico-legal aspects, establishment of new oral and general pathology lab/diagnostic centre, lab management and economics, etc.

Helpline

+91-7027038190

Mail - popma01797@gmail.com

The Organizing committee is hard at work!

Celebrating the team Spirit

The international Oral Diseases Case Presentation Conference 24

Oral 360 PATHOLOGY 360

POPMA ACHIEVEMENTS 2024

Pathology: The Foundation of Modern Medicine and Oral Health

Dr. Bhuvan Nagpal

Founder and President, POPMA

Pathology, often referred to as the backbone of medicine, is a field where science meets art to unravel the mysteries of human health and disease. It bridges the gap between clinical symptoms and definitive diagnoses, enabling precise treatment and prevention strategies. Among the many branches of pathology, oral and maxillofacial pathology and oral microbiology hold a pivotal role in connecting dentistry with medicine, addressing both local and systemic health challenges. This article delves into the broader scope of pathology while highlighting the significance of its oral specialties, offering a comprehensive view of its indispensable role in modern healthcare.

The Pillars of Pathology

Pathology is broadly categorized into two main branches:

1. Anatomical Pathology: This branch focuses on the structural and morphological examination of tissues, cells, and organs. Through histology, cytology, and biopsy, anatomical pathology identifies abnormalities that underpin diseases like cancer, inflammatory conditions, and degenerative disorders.
2. Clinical Pathology: This branch analyzes bodily fluids such as blood, urine, and cerebrospinal fluid to diagnose systemic diseases. Clinical pathology uncovers the biochemical and microbial imbalances responsible for various disorders by employing biochemistry, hematology, and microbiology. Together, these branches serve as the foundation for understanding diseases and guiding effective medical and dental interventions.

Oral and Maxillofacial Pathology: Bridging Dentistry and Medicine

Oral and Maxillofacial Pathology is a specialized branch of anatomical pathology that focuses on diagnosing and studying diseases affecting the oral cavity, jaws, and associated structures. It serves as a bridge between dentistry and medicine, addressing both local oral conditions and their potential systemic impacts.

1. Key Areas of Focus:

Oral pathologists investigate a wide spectrum of diseases, including:

- Oral cancer and precancerous lesions.
- Salivary gland disorders like sialadenitis and neoplasms.
- Bone diseases such as osteomyelitis and fibrous dysplasia.
- Mucosal disorders, including lichen planus, pemphigus vulgaris, and fungal infections like candidiasis.

2. Cancer Detection and Prevention: One of the most critical roles of oral pathologists is the early detection of oral cancer. Identifying precancerous changes like leukoplakia and erythroplakia plays a vital role in preventing disease progression and improving survival rates.

3. Collaborative Care: Oral pathologists work closely with oncologists, maxillofacial surgeons, ENT specialists, and dentists to deliver comprehensive care for complex conditions involving the head and neck region. Their multidisciplinary approach ensures that patients receive precise and effective treatment.

4. Advanced Diagnostic Tools: Employing techniques such as molecular pathology and immunohistochemistry, oral pathologists can provide a deeper understanding of disease mechanisms and tailor treatment plans accordingly.

Oral Microbiology: Unlocking the Microbial World of the Oral Cavity

Oral Microbiology focuses on studying the microorganisms within the oral cavity and their influence on both local and systemic health. The oral microbiome, consisting of bacteria, fungi, viruses, and protozoa, plays a significant role in maintaining oral health, but disruptions in this ecosystem can lead to disease.

1. Key Contributions of Oral Microbiology:
- Identifying pathogens responsible for dental caries, periodontal disease, and endodontic infections.
- Understanding the role of oral infections, such as periapical abscesses and osteomyelitis.
- Exploring the link between oral microbiota and systemic diseases like cardiovascular conditions, diabetes, and adverse pregnancy outcomes.

2. Oral-Systemic Link: Emerging research highlights the bidirectional relationship between oral and systemic health. For instance, bacteria like Porphyromonas gingivalis and Fusobacterium nucleatum are linked to atherosclerosis and colorectal cancer, respectively. Oral microbiologists are at the forefront of exploring these connections and devising preventive strategies.

3. Diagnostics in Oral Microbiology: Advanced techniques, including PCR, next-generation sequencing, and microbial cultures, allow oral microbiologists to identify specific pathogens and develop targeted antimicrobial therapies.

4. Public Health Impact: Oral microbiologists contribute to public health by studying infectious disease transmission in the oral cavity, promoting vaccination programs, and emphasizing preventive measures like improved oral hygiene practices and fluoride application.

The Broader Scope of Pathology

Beyond its oral specialties, pathology encompasses a wide array of subspecialties that collectively address diverse diagnostic and therapeutic needs:

1. Histopathology and Cytopathology: These foundational branches examine tissues and cells under the microscope, identifying abnormalities that inform the diagnosis of conditions like cancer, infections, and autoimmune diseases.

2. Hematopathology: This field focuses on diseases of the blood, such as leukemia, anemia, and clotting disorders. Hematopathologists analyze bone marrow and blood samples to provide critical insights into systemic conditions.

3. Molecular Pathology: A rapidly evolving specialty, molecular pathology employs techniques like PCR and DNA sequencing to identify genetic mutations, enabling personalized treatment plans for patients.

4. Forensic Pathology: Forensic pathologists determine the cause of death in legal cases, combining medical expertise with investigative skills to aid law enforcement and justice.

The Future of Pathology

As technology advances, oral pathology and microbiology are becoming even more integral to healthcare. Emerging trends include:

1. Digital Pathology: Scanning pathology slides into high-resolution digital images allows for remote diagnosis and AI-driven analysis, making expert consultations more accessible.

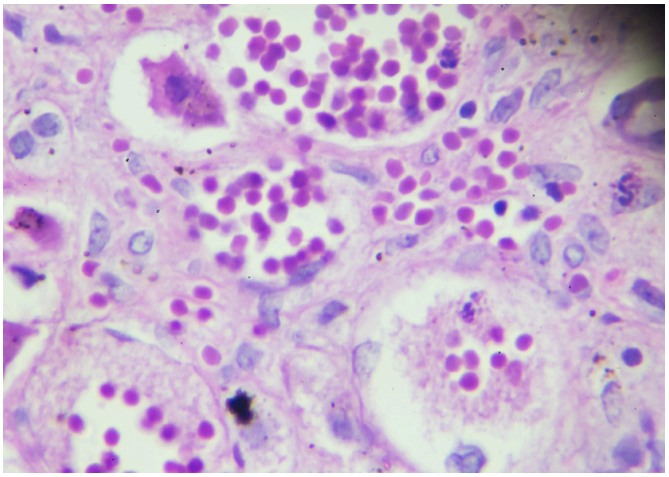
2. Precision Medicine: Molecular techniques enable personalized treatment plans tailored to a patient's genetic and microbiological profile, especially in oral cancer and systemic diseases linked to oral health.

3. Interdisciplinary Collaboration: Combining insights from radiology, genomics, and microbiology offers a holistic view of patient health, ensuring comprehensive and accurate diagnoses.

4. Public Health Initiatives: Oral pathologists and microbiologists are increasingly involved in public health campaigns, emphasizing the prevention of oral diseases and their systemic impacts.

Conclusion

Pathology, with its oral and maxillofacial specialties, is indispensable to modern healthcare. By identifying the root causes of diseases, it not only saves lives but also bridges the gap between medicine and dentistry. Oral pathologists and microbiologists, in particular, play a critical role in safeguarding both local and systemic health, ensuring that every diagnosis leads to better outcomes. As we move into a future shaped by technology and interdisciplinary collaboration, these specialists will continue to lead innovations that redefine healthcare. Their dedication and expertise remain a beacon of hope for patients and practitioners alike, proving that pathology is not just a science but an art that underpins the very foundation of modern medicine.



Salivary Alpha-Amylase: A Potential Biomarker for Type II Diabetes

Dr. Vandana Shah

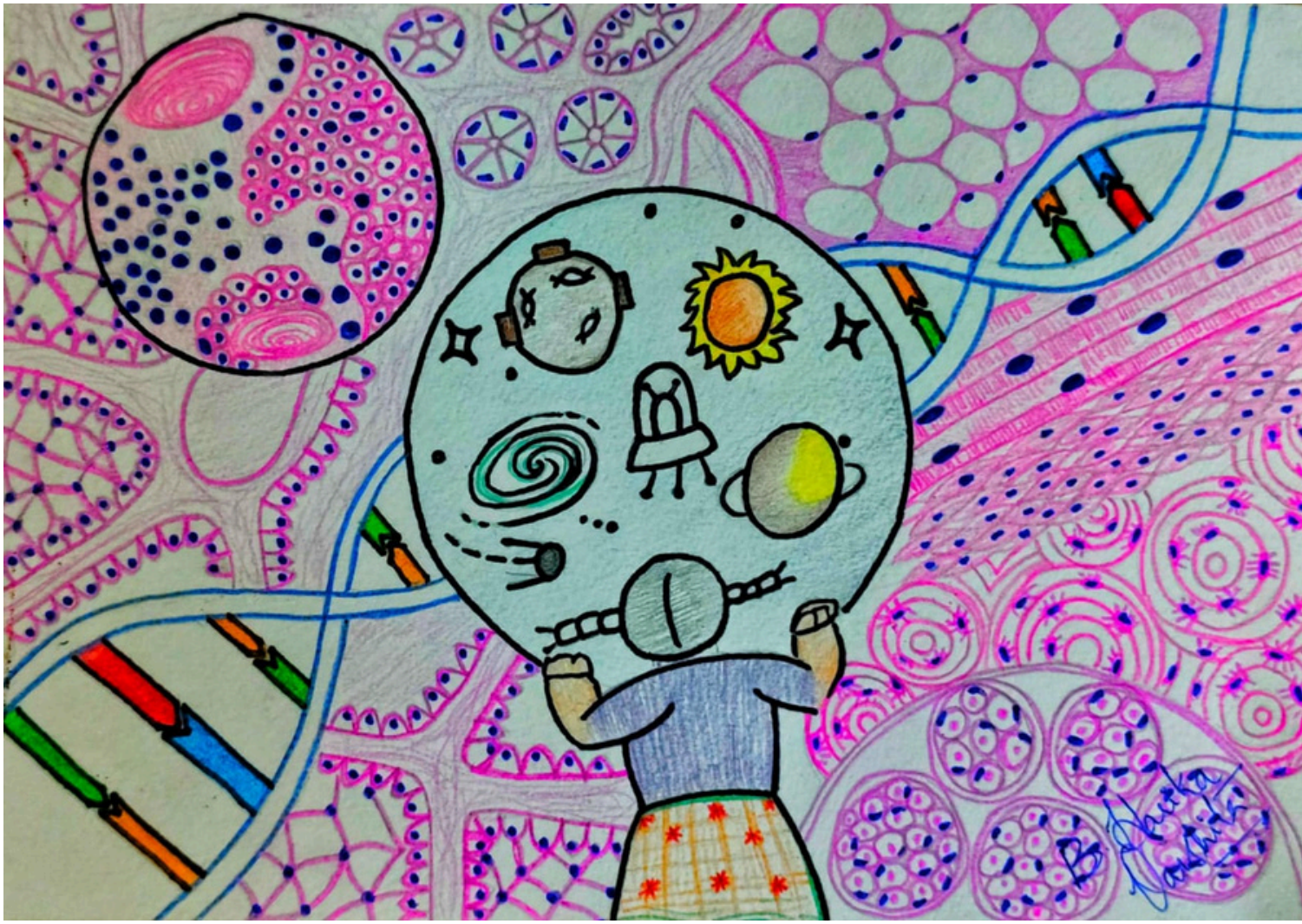
Professor and Head, Department of Oral and Maxillofacial Pathology, K M Shah Dental College and Hospital, Sumandeep Vidyapeeth Deemed to be University, Piparia, Waghodia, Vadodara, Gujarat

Diabetes mellitus is one of the fastest-growing health challenges with considerable morbidity and significantly impacts immune function, predisposing individuals to infections. Traditional diagnostic and monitoring approaches often rely on invasive blood tests. However, the present study sheds light on the potential of salivary alpha-amylase as a non-invasive biomarker for Type II diabetes.

The study enrolled 80 participants divided into three groups: uncontrolled diabetics(30), controlled diabetics(30), and healthy controls (20). The findings showed significantly elevated salivary amylase levels in diabetic individuals compared to healthy participants, with a significant difference between uncontrolled diabetics and controls. Moreover, salivary amylase levels between controlled diabetics and healthy individuals showed no statistically significant difference, suggesting the enzyme's responsiveness to glycemic control.

This research underscores the potential of salivary diagnostics as a valuable tool for monitoring diabetes. While promising, validation with larger, more diverse cohorts—including prediabetics and Type I diabetics—is necessary. If further confirmed, salivary alpha-amylase could become one of the most essential parameters in diabetes management by offering a simple, non-invasive, and accessible alternative for diagnosis and disease monitoring.

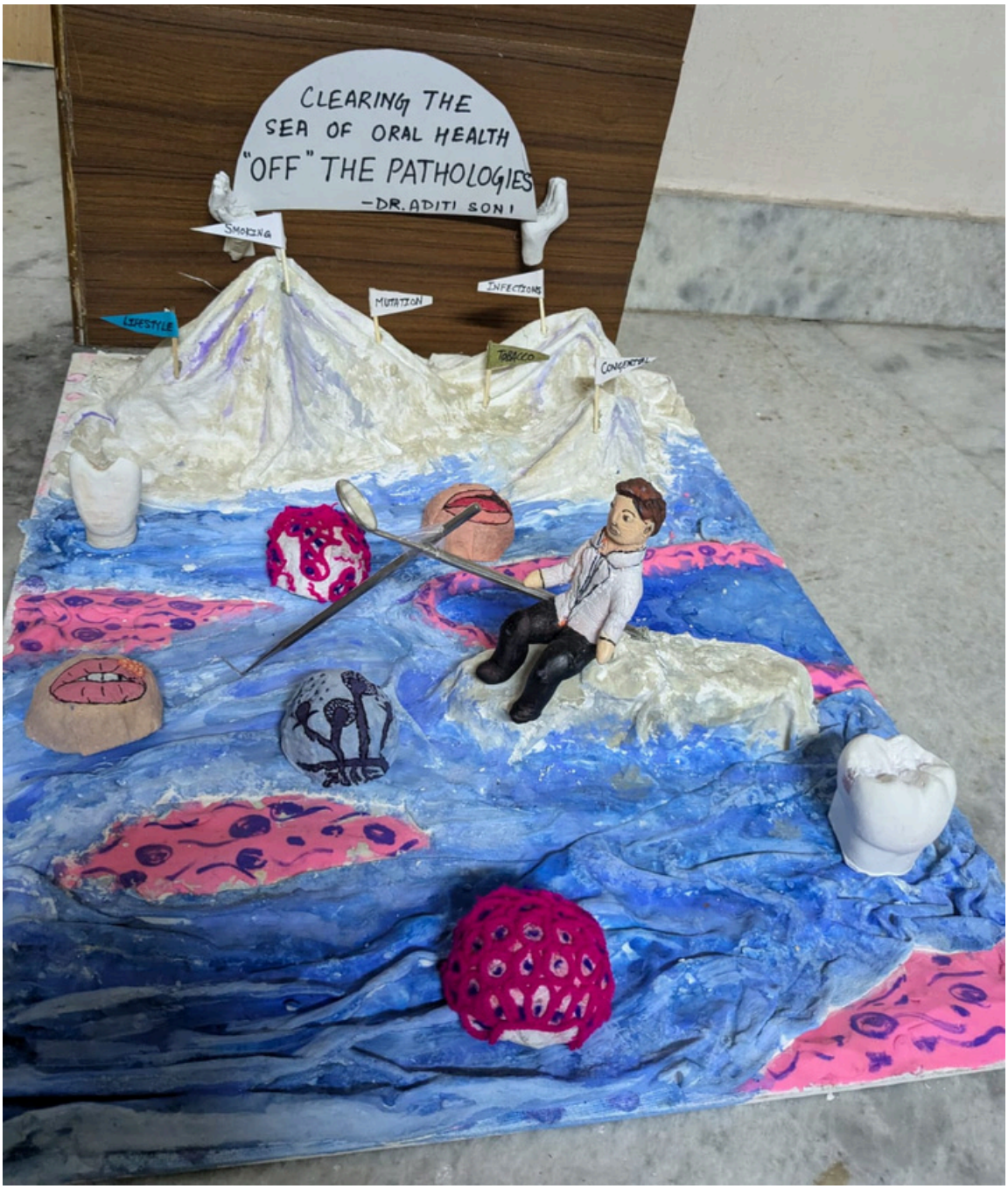
This advancement aligns with the growing role of oral and maxillofacial pathology in systemic disease detection, emphasizing the importance of interdisciplinary approaches in healthcare.



A new "OP"en world for a little eye

DR. BUDDHA HARIKA VARSHITA
III MDS (Oral Pathology and Microbiology)
GITAM Dental College and Hospital, Visakhapatnam, Andhra Pradesh

Cleaning the sea of Oral Health 'off' the pathologies" : The role of dental personnel in restoring oral health



3D Model Art Form

DR. ADITI SONI

Intern GDC (RUHS CODS), Jaipur

Today, we as humans are exposed to many risk factors. Be it the lifestyle disorders; deteriorating habits like consumption of tobacco containing products, smoking and alcohol; exposure to various pathogens; congenital disorders; genetic mutations and dysplastic changes. These in turn contribute to many oral pathologies like fungal and opportunistic infections like Mucormycosis, Hutchinson's teeth in Congenital Syphilis, premalignant & cancerous transformations, congenital abnormalities like cleft lip and palate as well as many other disorders. So, here what we as Dentists or as an Oral Pathologist play a vital role by diving deep into the sea of Oral pathologies and diagnosing and extracting out these abnormalities of the human race to ensure every individual a healthy oral cavity and lifestyle.

A poetry dedicated to all the oral pathologists

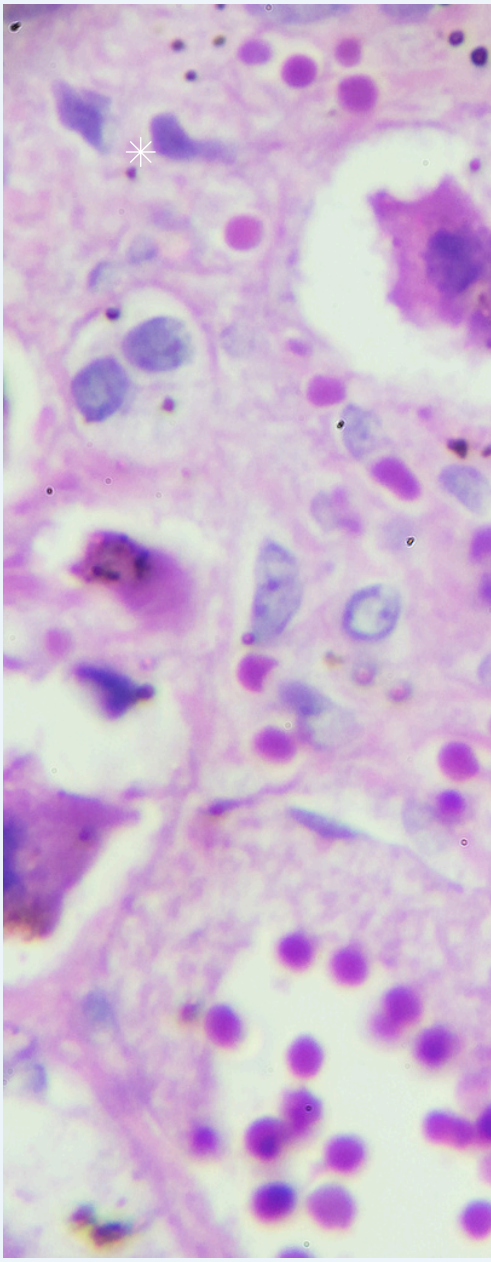
FROM THE RIM OF MY EYEPIECES,
WHEN I SEE, CURIOUSLY ARRANGED CELLS AND DIFFRENT ENTITIES,
YOU GET TO TREAT THE DISEASE PERFECTLY RIGHT,
ONLY WHEN, YOU GET THE RIGHT DIAGNOSIS,
FROM MY SIDE

Dr Nidhi Jadhav (Gupta)

BDS, MDS (Oral Pathology & Microbiology) Dental Practitioner & Practicing Oral Pathologist @ Kanak Multispeciality Dental Clinic & Diagnostic Centre for Oral & Maxillofacial Pathologies, Sangli, Maharashtra Reader at Vasant Dada Patil Dental College, Sangli, Maharashtr

Dr. Geetpriya Kaur

MDS (Oral and Maxillofacial Pathology and Microbiology)
Ph.D Scholar, Medical School, University of Porto, Portugal
Director, Paradise Diagnostics



ASPIRE TO INSPIRE

Q1. Tell us about your academic background.

I completed my BDS from RV Dental College, Bengaluru, India (2003-2008). I have an MDS degree in Oral and Maxillofacial Pathology from I.T.S Dental College, Ghaziabad, India (2009-2012). Later, I went to New York University as a Visiting Scholar in the Department of OMPRM, US (April/May 2014).
Currently, I am pursuing a Ph.D. in Clinical and Health Services Research at the Medical School of the University of Porto (FMUP), Porto, Portugal, under the supervision of Prof. Rui Amaral Mendes.

Q2. Why did you choose to study oral pathology?

I chose the Oral Pathology specialty because I believe that it is a unique branch of dentistry that combines research, practice, and academics. I gave the term "Researchamician" to an Oral Pathologist. Even though Oral Pathology is a non-clinical branch, it acts as a bridge between dental professionals and oral surgeons. The treatment of oral lesions depends on our diagnostic skills. Having a wide range of knowledge, an Oral Pathologist gives the diagnosis of oral lesions based on clinical, radiological, and histopathological correlations.

Q3. Please tell us about your journey to your current role after earning your MDS degree.

After completing my MDS in 2012, I joined Hindu Rao Hospital on an honorary basis for a few months. From there, my colleague, a dental surgeon advised me to give a histopathology report of the oral diseases of the Dental Department of Hindu Rao Hospital. That was the turning point of my life. I started reporting histopathology cases from my home. Thereafter in 2014, I decided to start my dental diagnostic center, Paradise Diagnostics, New Delhi. My diagnostic center provides Oral Radiology and Oral Pathology facilities. The Oral Radiology services include CBCT, OPG, and Lateral Cephalogram. Oral Pathology services include consultancy of oral cases, biopsy, and histopathology of oral diseases.
I have also worked as a Senior lecturer and Reader in the Department of Oral Pathology and Microbiology, Kalka Dental College from 6th December 2012 to 31st March 2021. Subsequently, I have worked in the capacity of a Reader and Professor in the Department of Oral Pathology and Microbiology, Institute of Dental Studies and Technologies (IDST) from 24th June 2021 to 24th December 2022. Additionally, I have also worked as an assistant editor at the Journal of Clinical and Diagnostic Research and have written e-newsletters for the Dental Tribune. I have joined Working Group 1 of INTERCEPTOR, a project funded by the COST Association-European Cooperation in Science and Technology. Recently, I have started pursuing a Ph.D. program at the Medical School of the University of Porto (FMUP), Porto, Portugal.

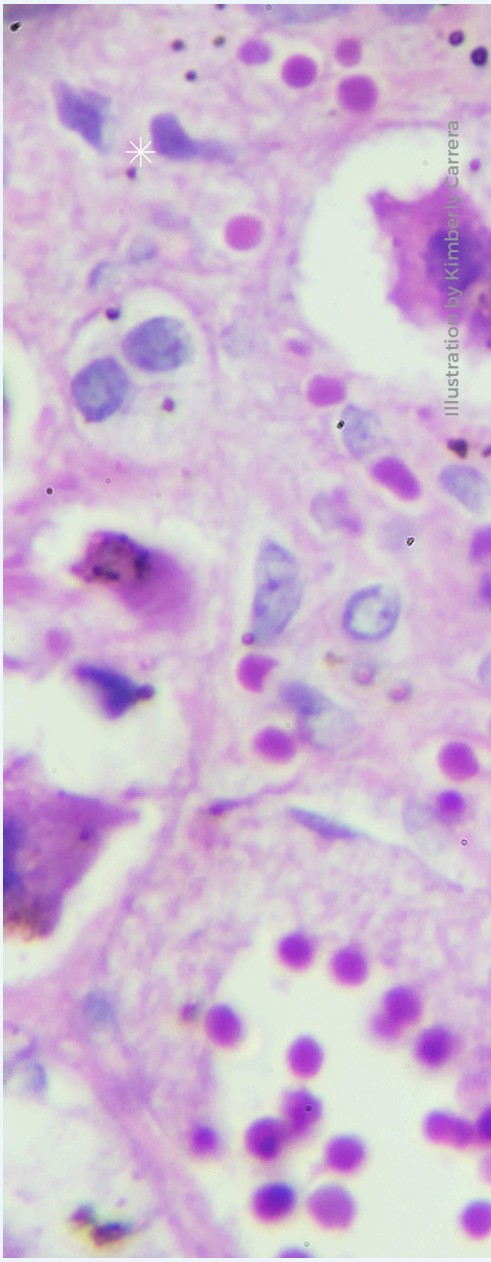


Illustration by Kimberly Carrera

Q4. Kindly give a detailed description of your current position.

I am Managing Director of Paradise Diagnostics, a state-of-the-art Oral Radiology and Oral Pathology Diagnostic Center in New Delhi, India. Currently, I have joined a Ph.D. in Clinical and Health Services Research, at Medical School, University of Porto, Portugal. I am also part of working group 1 of INTERCEPTOR, a project funded by the COST Association-European Cooperation in Science and Technology.

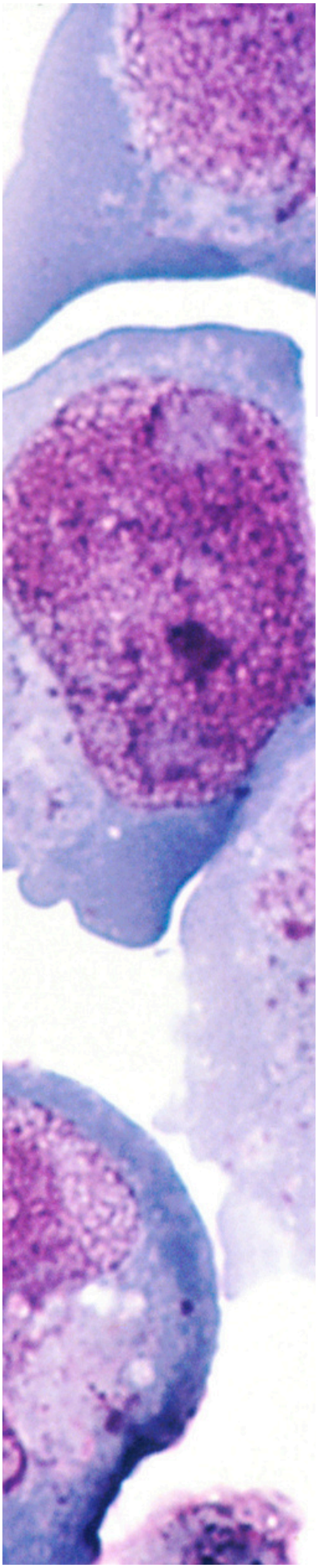
Q5. Please share details of your Ph.D. Supervisor.

Prof. Rui Amaral Mendes is my Supervisor. His research areas are OPMDs, Oral Oncology and Supportive Care in Cancer, Oral and Maxillofacial Medicine, Data Science, and Artificial Intelligence (AI). He has contributed to several European Research projects. He is currently leading the Working Group1 (WG1) of the INTERCEPTOR, an action currently funded by the COST Association – European Cooperation in Science and Technology and he is also the chair of the task on Health Policies of the Joint Action on Network of Expertise in Cancer (JANE-2), a project funded by the European Comission.

Q6. Any take-home messages for Oral & Maxillofacial Pathology graduates?

- After earning a master's degree in oral pathology, there are numerous career options. Try looking into possibilities for both research and private practice.
- If someone offers you instructions, attempt to do what they say. Unexpected sources can present opportunities.
- Develop your marketing skills and try to meet as many dentists as you can. Be mindful of your domain. Attend workshops, CDEs, and conferences.
- Attempt to pick up insights from every senior you meet. Gain knowledge from their experiences.
- Use social media sites to share and showcase your work and interests.
- Try to master fundamental skills like histology and pick up new ones.
- Always plan for higher goals, work hard, and follow your instincts.

"IF MY MIND CAN CONCEIVE IT, IF MY HEART CAN BELIEVE IT, I CAN ACHIEVE IT "



INCLUSION BODIES

Dr. Arushi Pandey
M.D.S Oral Pathology
Consultant Oral Pathologist
Kshetrapal Dianostic Centre
Kota, Rajasthan

Nuclear or cytoplasmic aggregates known as inclusion bodies are stainable materials, typically proteins, that form when an infectious agent or foreign gene is introduced into a cell. The complementary DNA translated from a messenger RNA may code for a protein that is not modified further, transported, or condensed, resulting in inclusion bodies. Cells in certain diseases get modified and may become pathognomonic for that specific disease.

Physiological Inclusion bodies

- **Odland bodies:** Odland bodies are membrane-coating granules found in keratinized stratified squamous epithelium. It is sometimes referred to as keratinosomes or lamellar bodies. These can be found in the glycolipid-rich stratum granular and higher stratum spinosum cell layers. The extracellular release of these lipids creates a permeability barrier that stops aqueous fluids from being absorbed.

- **Weibel-Palade bodies:** These are endothelial cells' storage granules. The body stores two key molecules, von Willebrand factor and P-selectin, which are released when required. Therefore, they significantly impact inflammation and hemostasis.

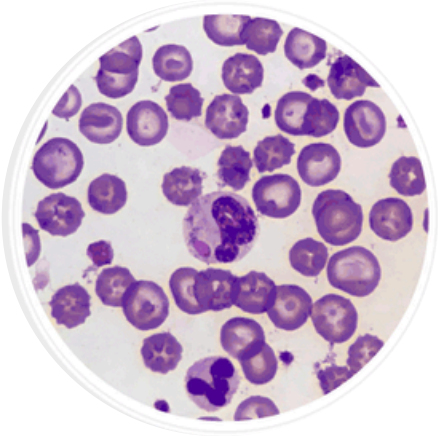
- **Toto bodies:** They are homogeneous, eosinophilic pools of material seen in the superficial spinous layer of the surface epithelium in diseases like epulis fissuratum.

Classification of Inclusion bodies

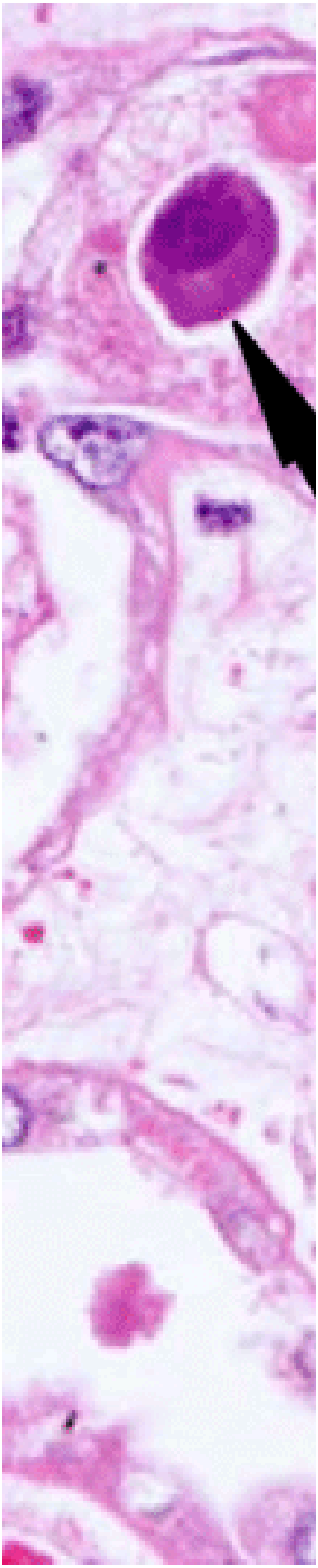
- Physiological inclusion bodies
- Infection inclusion bodies

--Inclusion bodies in viral conditions
- Intracytoplasmic inclusions
- Intranuclear inclusions
- Both nuclear and cytoplasmic inclusions

--Inclusion bodies in bacterial infections
--Inclusion bodies in fungal diseases
- Inclusion bodies in neoplasms
- Inclusion bodies in autoimmune diseases
- Inclusion bodies in blood dyscrasias
- Inclusion bodies in cystic lesions



Inclusion bodies is an important diagnostic-aid in identifying the underlying disease



Infection inclusion bodies

- **Inclusion bodies in viral conditions**

1. **Intracytoplasmic inclusions**
a. Henderson-Paterson bodies – Molluscum contagiosum
b. Councilman bodies –Viral hepatitis, Yellow fever
c. Guarnieri bodies (Type A, Type B) – Smallpox
d. Paschen bodies – Smallpox
e. Downie bodies – Cowpox
f. Negri bodies – Rabies

2**. Intranuclear inclusions**
a. Lipshutz bodies – Herpes simplex
b. Owl's Eye – CMV, HHV-5
c. Cowdry bodies (Type A, Type B) – Herpes simplex, Varicella zoster
d. Torres bodies – Yellow fever

3. **Both nuclear and cytoplasmic inclusions**
a. Warthin-Finkeldey cells – Measles
b. Mitosoid bodies – Heck's disease

- **Inclusion bodies in bacterial infections**

Dohle bodies [seen in peripheral blood smear (PBS)] – Tuberculosis, Diphtheria, Typhoid, Erysipelas, Oral sepsis, Physical trauma, Fanconi syndrome, May-Hegglin anomaly, Chediak-Higashi syndrome, Leukemoid reaction

- **Inclusion bodies in fungal diseases**

Asteroid bodies (Splendore-Hoeppli phenomenon) – Sarcoidosis, Tuberculosis, Leprosy, Actinomycosis, Berylliosis, Foreign body giant cell reaction, Sporotrichosis, Lobomycosis, Parasitic infections

Inclusion bodies are seen in blood dyscrasias

- Heinz bodies- Glucose-6-phosphate dehydrogenase deficiency, hemolytic anemias, hemolytic anemias
- Howell-Jolly bodies- Pernicious anemia and Leukemia with megaloblastic anemia

Inclusion bodies in neoplasm

- Wagner-Meissner body- von Recklinghausen's disease of the skin, neurofibroma
- Verocay bodies- benign nerve sheath tumor, Schwannoma
- Psammoma bodies- numerous benign and malignant epithelial and connective tissue tumors such as psammomatoid meningioma, psammomatoid juvenile ossifying fibroma, psammomatoid melanotic schwannoma, cystadenocarcinoma.
- Russell bodies- chronic inflammatory granulomata, multiple myeloma, plasmacytoma, helicobacter pylori infection, periapical granuloma.
- Pustulo- Ovoid bodies- granular cell tumors
- Kamino bodies-pigmented spindle cell nevus, Spitz nevus
- Dutcher bodies- chronic synovitis and large B- cell lymphoma and multiple myeloma.

Inclusion bodies in autoimmune diseases

- Civatte bodies- discoid lupus erythematosus and lichen planus
- Hematoxylin bodies- systemic lupus erythematosus
- Schaumann bodies- Sarcoidosis, tuberculosis, hypersensitive pneumonitis

Inclusion bodies seen in cystic lesions

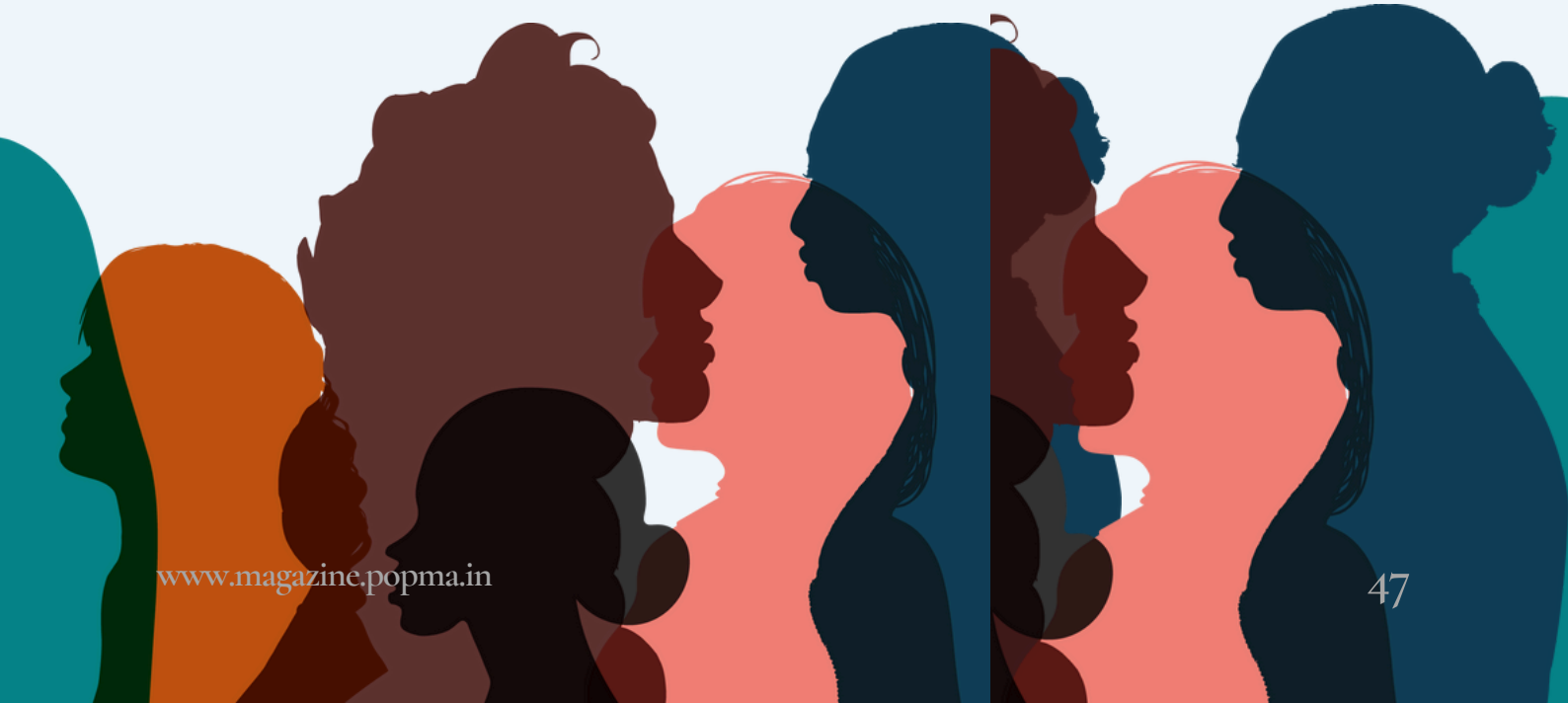
- Rushton bodies/ Hyaline bodies- Plexiform Ameloblastoma, Residual Cyst, and Radicular Cyst.
- Cholesterol crystals- Radicular cyst, Residual cyst, inflamed developmental cysts.
- Liesegang's Rings –Calcifying epithelial odontogenic cyst.

This is an effort to enlist these inclusion bodies for a rapid read.

WOMEN

POPMA stands to be the proud association to provide 29% reservation to women in its Governing Body

The posts of the Vice President and Executive member will be reserved for females only (29% reservation) and only nominations for female members will be accepted for the same



Exploring New Horizons: Career Options for Oral Pathologists

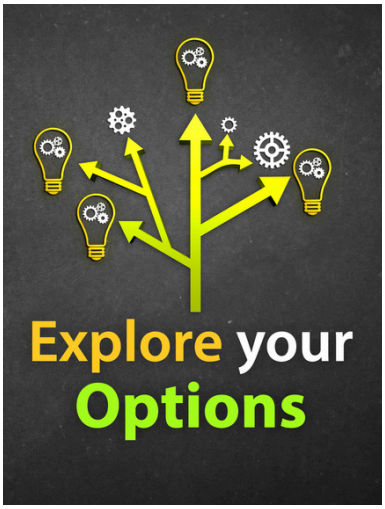
Dr. Aparna Pathak
Consultant, Paradise Diagnostics, Delhi
Medical Writer, Medcafe Solutions, Mumbai

Beyond conventional clinical dentistry, oral pathologists have an assortment of additional employment avenues after earning an MDS degree. Career options for an MDS in Oral Pathology are varied and include employment in academia, content development, clinical practice, research, and healthcare companies. Such professionals can apply their knowledge to improve dental science and public health through these avenues. The following are some possible substitutes:

1. Clinical Data Analyst/Dental Research Associate

Clinical data analysts play a crucial role in guaranteeing the precision and effectiveness of clinical research as well as enhancing healthcare outcomes via data analysis. There are several other opportunities for oral pathologists in clinical research, including working on novel dental products, treatment interventions, and emerging technologies.

- Medical Researcher: Oral pathologists can pursue research careers, concentrating on the identification of biomarkers, treatment approaches, and oral illnesses. This could entail employment at government-funded research centers, pharmaceutical businesses, or academic institutions.
- Clinical Trials Management: Oral pathologists interested in drugs or new therapies may manage clinical trials, which include research on testing, medication development, and treatments for oral diseases.
- Collaborative Research: Researching diseases including oral cancer, infections, or autoimmune disorders by collaborating with other medical specialties such as oncology, immunology, or genetics.



2. Content Development and Medical Writing

This line of work frequently calls for outstanding communication abilities as well as the capacity to make difficult dentistry topics understandable to a larger audience. The following are some ways that oral pathologists with a writing talent might advance dental education and awareness:

- Dental Content Creation: Creating blogs, articles, or educational resources for the public or dental professionals.
- Medical Writing: Writing clinical trial reports and research papers, or contributing to the creation of material for dental magazines, journals, and publications.

3. Higher studies like a PhD

For those who have a strong interest in research, academia, or specialized areas of dentistry, pursuing a PhD after earning an MDS degree is a fascinating and promising career path. However, the specific route depends on the area of interest and the type of PhD.
Following an MDS, a PhD can lead to specialized clinical areas in dentistry, academic careers, and advanced research. Whether you have a particular interest in clinical dentistry, oral health research, public health, or other related scientific fields, your route may change. Additional credentials or tests might be required, as requirements and rules differ nationally and internationally.

‘The art of writing is the art of discovering what you believe”

4. Specialized Diagnostic Evaluations

Some oral pathologists might choose a non-academic route by offering specialist diagnostic consultations to dental clinics and hospitals, especially those handling complex cases. These amenities are beneficial in difficult cases where general practitioners or specialists may require expert advice on identifying and treating oral disorders.

- Biopsy Interpretation: They can help clinicians make the final diagnosis of oral pathologies such as infections, autoimmune diseases, precancers, and mouth malignancies by interpreting tissue biopsies, histopathological slides, and imaging data.
- Differential Diagnosis: An oral pathologist can help reduce the number of possible diseases or ailments when a patient exhibits atypical symptoms by taking into account all relevant information, including laboratory results, clinical presentation, and medical history.
- Multidisciplinary Collaboration: An oral pathologist's expertise may be needed in complex cases, such as temporomandibular joint disorders or multifactorial illnesses affecting both oral and systemic health. Comprehensive care is ensured through cooperation with other medical or dental professionals.

5. Hospital Administration/ Management

Oral pathologists who possess the necessary training and experience might assume administrative positions in dentistry offices or hospitals:

- Healthcare administrators: They control staff recruitment, operations, budgets, and hospital departments or dentistry clinics.
- Dental clinic managers: Oral pathologists may manage a private business or oversee dental services in hospitals or other healthcare organizations.
- Examples of health policy and management include creating oral health policies or working in the public sector to improve healthcare delivery systems.
- Corporate Sector

Numerous career options are available in the corporate community, such as:

- Dental Product Development: Collaborating with businesses that provide dental supplies, equipment, or medications.
- Dental Consultant: Offering advice to dental offices or major healthcare institutions to increase productivity and profitability.
- Government Roles and Public Health

Public health specialists are essential to improve oral health at the population level. A few possible job paths are:

- Public health dentists support oral health initiatives, run awareness campaigns, and develop community-based preventative care plans.
- Government Assignments: Improving oral health services for underprivileged communities by working in government health agencies or with nonprofit organizations.

6. Telemedicine/Dental Consulting

As telemedicine grows, oral pathologists can consider offering patients online consultations and guidance. These positions might call for proficiency with telemedicine platforms and knowledge of the pertinent dental specialties. They are:

- Virtual consultations for general advice, follow-up care, or second opinions are available through online dental consultations.
- Dental Consultant: Offering guidance to dental offices on best practices, patient care, and operational efficacy.

"HAPPY NATIONAL ORAL PATHOLOGISTS DAY"

|February 25|

UPDATE BEFORE OUTDATE - APPLICATIONS OF IN SILICO ANALYSIS IN ORAL PATHOLOGY

Prof. Dr. Yoithap Prabhunath TR,
MDS., Ph.D., Department of Oral Pathology and Microbiology, Vivekanandha Dental College for Women.

Oral pathology is expanding significantly, both in scope and in its integration with emerging technologies and interdisciplinary fields. This growth is being driven by advances in molecular biology, genomics, bioinformatics, and digital technologies. As oral diseases, including oral cancer, infectious diseases, and immune-mediated disorders, are becoming more prevalent globally, the role of oral pathologists is evolving and becoming more impactful.

In silico analysis in oral pathology refers to the use of computational tools, bioinformatics, and simulation models to study various aspects of oral diseases, including cancer, infections, genetic disorders, and inflammation. This approach aids in analyzing large datasets, predicting outcomes, and identifying biomarkers without the need for physical experiments. The following were the list of analysis and tools which can be used to master the analysis.

1. Genomic and Proteomic Analysis - Identify genetic and protein biomarkers associated with oral diseases, especially oral squamous cell carcinoma (OSCC) and precancerous lesions.
   - Tools: NCBI (BLAST) for sequence alignment and identification, Ensembl Genome Browser for gene annotation, STRING Database for protein-protein interaction analysis, and GEO Database for microarray and RNA-seq data analysis.

2. Molecular Docking and Drug Discovery - Identify therapeutic targets and screen potential drugs for treating oral cancer and infections. Molecular docking techniques predict how drugs bind to specific proteins involved in disease pathways.
   - Tools: AutoDock or Molecular Operating Environment (MOE) for docking studies, PyMOL for molecular visualization, and SwissDock for ligand-binding predictions.

3. Next-Generation Sequencing (NGS) Data Analysis - Detect mutations, gene expression profiles, and epigenetic changes contributing to oral pathology. Analysis of tumor-specific mutations and altered gene expressions and Discovery of non-coding RNAs like miRNAs and lncRNAs in oral pathologies.
   - Tools: Galaxy, Cufflinks, and DESeq2 for RNA-seq analysis, IGV (Integrative Genomics Viewer) for visualizing sequence data.

4. Pathway and Network Analysis - Identify pathways implicated in disease progression and resistance to treatment in head and neck tumors or inflammatory lesions.
   - Tools: KEGG Pathway Database for pathway enrichment, Cytoscape for visualizing molecular interaction networks, and DAVID for functional annotation of genes involved in oral pathology.

5. Prediction of Biomarkers - Predict genetic or protein markers for early detection, prognosis, and targeted therapy in oral cancer or pre-cancerous lesions. Use machine learning and statistical models to analyze genomic datasets.
   - Tools: BioDiscovery for predictive biomarker analysis, Machine Learning Algorithms (Random Forest, SVM) for classification of healthy vs. diseased tissues.

6. 3D Structural Modeling - Model the structural changes in proteins or receptors implicated in oral cancer and genetic disorders.
   - Tools: MODELLER for homology modelling, SWISS-MODEL for protein structure predictions.

7. Microbiome and Metagenomics Analysis - Study the role of oral microbiota in diseases like periodontitis, caries, and oral cancer. In silico analysis of 16S rRNA sequencing data helps identify dysbiotic bacterial communities.
   - Tools: QIIME and Mothur for microbiome analysis, MetaPhlAn for taxonomic profiling.

Advantages of In Silico Analysis

- Reduces the cost and time of traditional wet lab experiments.
- Allows analysis of vast datasets generated by high-throughput technologies.
- Enables discovery of novel biomarkers and therapeutic targets.
- Facilitates hypothesis generation for experimental validation.

Challenges

- Requires expertise in bioinformatics and data interpretation.
- Accuracy of predictions depends on the quality of input data.
- Needs integration with experimental (in vitro/in vivo) studies for validation.

The future of oral pathology is poised for significant transformation due to advancements in technology, molecular biology, and personalized medicine. The integration of artificial intelligence (AI), genomics, digital pathology, and precision medicine is reshaping the field, allowing for more accurate diagnostics, targeted therapies, and a better understanding of oral diseases. Adapting to the rapid changes in oral pathology requires proactive steps to integrate emerging technologies, modern diagnostic approaches, and collaborative research into routine clinical and academic practices. Oral pathologists, educators, researchers, and healthcare systems must embrace these advancements to stay relevant and provide the best possible care.

Histotripsy

Power Of Sound (Histotripsy): An Amplifier in Cancer Cure

Dr. Ketki Kalele
Vice President, POPMA

Approval of Histotripsy by FDA: A Non-Invasive Alternative to Traditional Liver Cancer Therapies

The U.S. Food and Drug Administration (FDA) has approved histotripsy for treating liver cancer cases. It is a groundbreaking technique that uses sound waves to break down tumors. This is a major advancement in the pursuit of less invasive and more effective cancer treatments. Pioneered by researchers at the University of Michigan (U-M), histotripsy offers a much gentler alternative to conventional treatments like surgery, radiation, and chemotherapy, which frequently have unpleasant side effects. With the application of concentrated ultrasonic waves, this non-invasive technique accurately locates and eliminates malignant tissue while sparing nearby healthy tissues.

Development of Histotripsy: The Efforts of a Decade of Research and Collaboration

This innovative development is the result of years of research and collaboration. In 2009, U-M engineers and medical professionals co-founded HistoSonics, a company that has been instrumental in the advancement of histotripsy. With FDA approval, this enterprise may now provide hospitals and healthcare providers with this revolutionary technology as a liver cancer therapy alternative. Since 2021, human trials have been conducted at the U-M Rogel Cancer Center and other locations, focusing on patients with primary and metastatic liver tumors. Promising outcomes from the studies indicate that this technique is capable of effectively eliminating specific liver tissue while adhering to crucial safety requirements.

Image 1: Zhen Xu, Professor of Biomedical Engineering, points to a bubble cloud generated by the Edison Platform's transducer head during a histotripsy demonstration at HistoSonics. Image credit: Erica Bass, Rogel Cancer Center, Michigan Medicine.

How Histotripsy Works: Sound Waves as a Weapon Against Tumors

Histotripsy operates by delivering precise, high-energy ultrasound waves to the tumor. Within the malignant tissue, these waves produce microbubbles, and the quick development and collapse of these bubbles produce forces that cause the tumor to fracture. Following that, the body's immune system removes any leftover material, facilitating a more organic healing process (Images 1, 2).

Benefits of Histotripsy:

The FDA's approval of histotripsy as a treatment for liver cancer is a significant development since it gives patients a cutting-edge method that is less physically taxing than conventional therapies. This non-invasive method has the potential to revolutionize the treatment of cancer.

1- Patient-Friendlier

Histotripsy may allow patients to receive treatment without the severe side effects of chemotherapy or radiation. In addition, the technique offers significantly shorter recovery times than surgery because it is non-invasive. Patients will also not have to worry about medication compatibility, which is a common issue with chemotherapy treatments. All things considered, it offers a less taxing and more comfortable course of therapy.

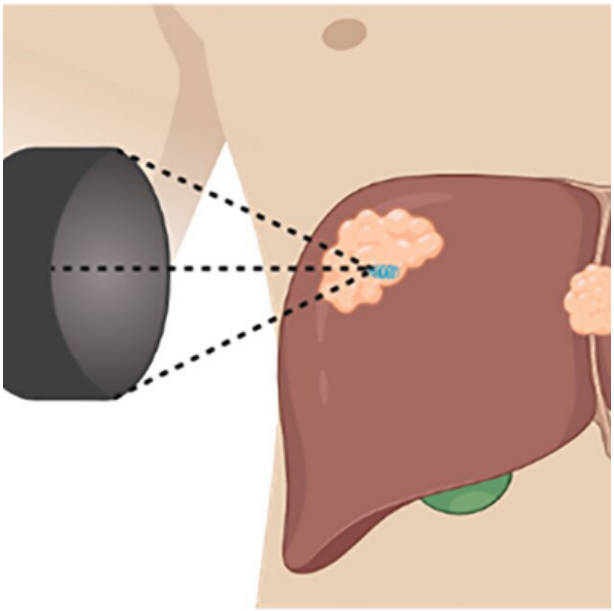


Image 2: Schematic diagram showing an external ultrasound transducer

Precision Targeting: Avoiding Damage to Healthy Tissues

The accuracy of histotripsy is one of its greatest benefits. Histotripsy can precisely target the tumor while sparing healthy tissue, in contrast to radiation, which damages everything in its course through the body. By focusing high-energy ultrasonic vibrations on the tumor, the procedure produces bubbles that disintegrate malignant tissue. The Edison platform from HistoSonics makes sure that this energy stays inside the tumor, improving the treatment's precision.

Real-Time Imaging for Effective Treatment

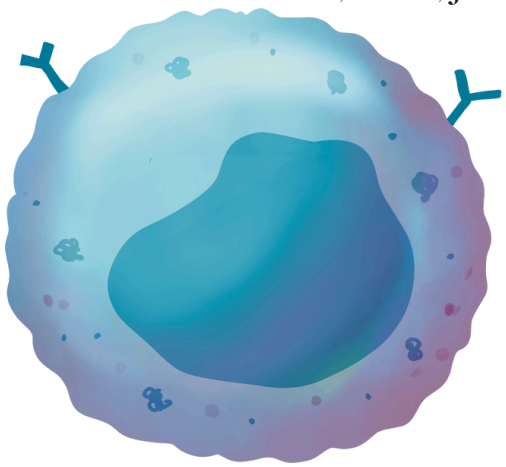
The histotripsy system also includes onboard diagnostic ultrasound imaging—similar to the ultrasound used to see babies during pregnancy. This imaging capability allows physicians to plan and monitor relevant treatment in real-time. As the treatment progresses, doctors can observe the "bubble cloud" forming within the tumor and see how the tissue is responding. This live feedback provides an extra layer of precision and control, making histotripsy even more effective and safer for patients.

Associated Clinical Aspects

As histotripsy technology continues to evolve, it holds the potential to become a leading cancer treatment. Patients and medical professionals searching for more efficient, patient-friendly treatments can find histotripsy beneficial in accurately targeting tumors, reducing side effects, and speeding up recovery times.

A Boost to the Immune System

The potential of histotripsy goes well beyond merely eliminating malignancies. According to new preclinical research, the immune system might be stimulated during the procedure, learning to identify and combat cancer cells even after the course of therapy is over.



Harnessing the Immune System to Fight Cancer

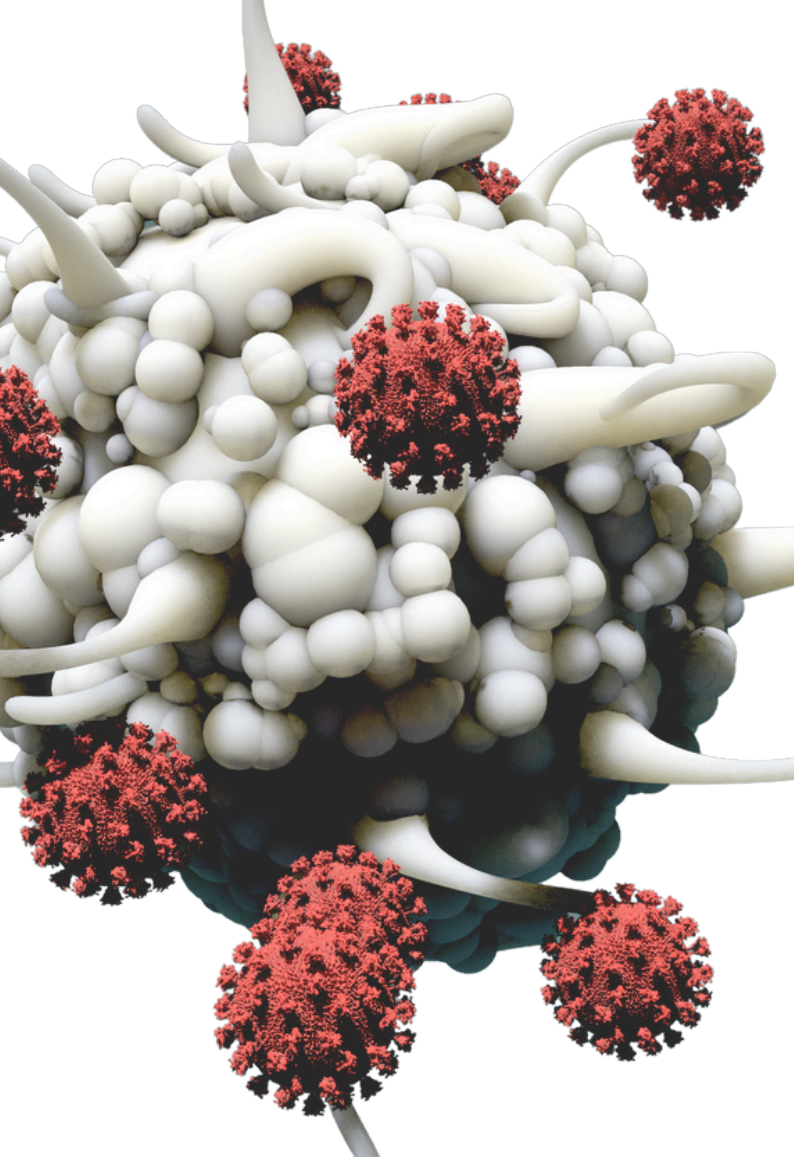
Two significant rodent studies conducted in the past year have demonstrated how histotripsy can elicit a natural immunological response. The immune system seems to "learn" how to recognize cancer cells as threats as it clears away the debris left by destroyed tumor cells. In addition to assisting with the removal of the original tumor, this procedure may fortify the body's defenses against the spread of cancer in the future (Image 3).

Image 3: Zhen Xu, Professor of Biomedical Engineering, describes a demonstration of histotripsy treatment. Image credit: Erica Bass, Rogel Cancer Center, Michigan Medicine

Following are a few studies on histotripsy, cementing its role as an innovative cancer therapy

Study 1: Tumor Elimination Without Recurrence
According to one study, the immune system was able to eliminate the remaining cancer cells even when histotripsy only removed 50% to 75% of the liver tumor volume. Surprisingly, almost 80% of the animals that received therapy did not develop metastases or recurrences, indicating the robust ability of histotripsy to activate the body's immune system to combat cancer.

Study 2: Unmasking Tumor Antigens for Immune System Targeting
Earlier this year, a second study found that histotripsy's capacity to show tumor antigens is a significant advantage. Antigens are proteins that the immune system can utilize to recognize cancer cells when the cancer cell wall breaks down during histotripsy. On the other hand, these antigens are frequently eliminated after surgery or eliminated by radiation and chemotherapy. Histotripsy allows the immune system to more efficiently target cancer cells, not only at the initial tumor location but possibly elsewhere in the body, by preserving the tumor's "identity."



Histotripsy: New Frontier in Cancer Immunotherapy

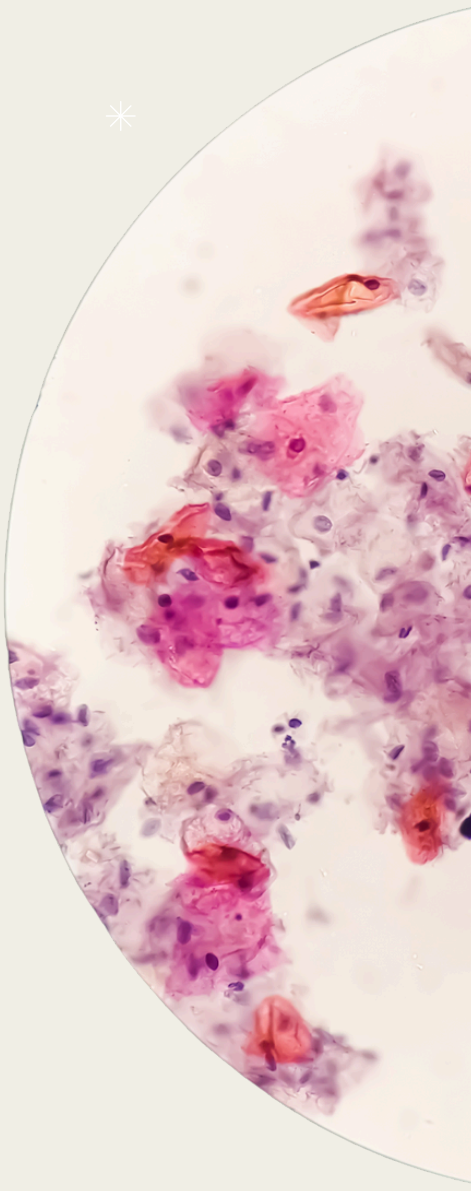
The approval of histotripsy marks the beginning of a new era in cancer treatment. Given that histotripsy is non-invasive, which results in fewer side effects and faster recovery times, this discovery may lessen the psychological and physical burden on liver cancer patients. As the technology continues to advance, histotripsy has the potential to become a leading treatment in global cancer care. This breakthrough not only provides a new non-invasive option for liver cancer patients but also paves the way for future applications. Combining histotripsy with other treatments may increase its efficacy. Histotripsy may soon be a key component of cancer treatment, giving patients and medical professionals new hope as clinical studies and technology advance.

According to the aforementioned research, histotripsy may be a useful tool for cancer immunotherapy in addition to being a tumor-targeting technique. Histotripsy can target cancer cells that may have spread to other parts of the body and prevent recurrence by assisting the immune system in identifying cancer cells and triggering a long-term response.

Dr. Shruti Govindarajan

BDS, MDS (Oral and Maxillofacial Pathology)

Clinical research associate at Thamarai Medical Foundation, Oral and maxillofacial oncology consultant - MGM Cancer Institute, Chennai



Q1. Tell us about your academic background.

I have done BDS from Meenakshi Ammal Dental College and Hospital, Chennai, and MDS from JSS Dental College and Hospital, Mysuru.

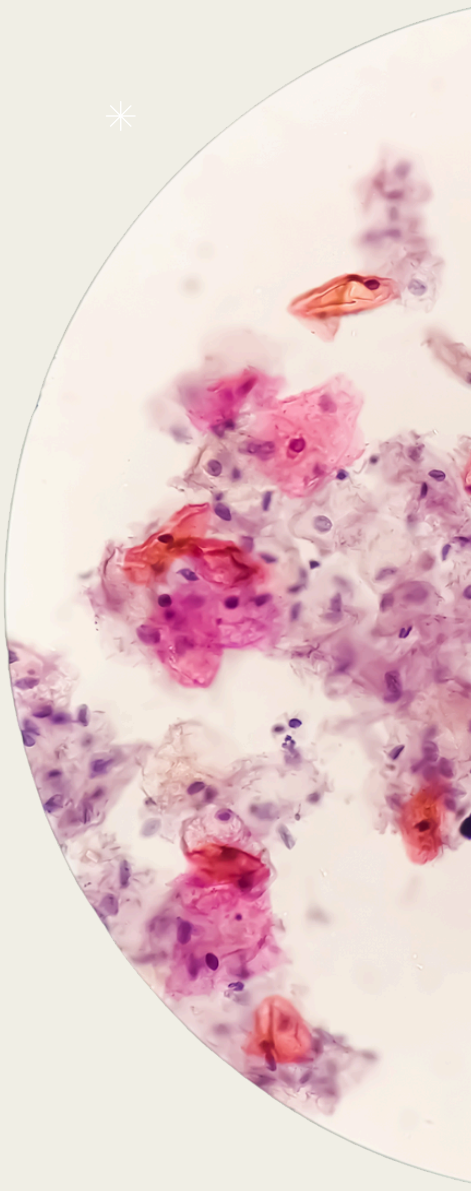
Q2. Why did you choose to study oral pathology?

Several things contributed to this decision. The intricacies of dental illnesses and how they affect general health fascinate me. Additionally, this field offered me a unique blend of clinical and laboratory work, allowing for a diverse and engaging career. Rebecca Skloot's book "The Immortal Life of Henrietta Lacks" narrates the gripping tale of Henrietta Lacks, an African American lady whose cancer cells were extracted in 1951 without her consent. Known as HeLa cells, these cells became one of the most important medical tools, leading to advancements in a variety of fields, such as genetics, vaccine development, and cancer research. Reading this book inspired me to seek a career in pathology and research.

Q3. Please tell us about your journey to your current role after earning your MDS degree.

I have worked in several hospitals that specialized in clinical oncology, general head, and neck general as well as oncopathology after obtaining my MDS, which gave me invaluable expertise. I completed multiple workshops and practical training sessions in oral oncology and obtained accreditation as an "Oral Cancer Screening Consultant." I now have a more comprehensive understanding of this field, thanks to my extensive training in the pre-, during, and after-surgical procedures as well as the onco-pathological therapy of head and neck cancers. LinkedIn has played a significant part in my career growth, and I spend a few hours every week looking into upcoming courses and learning resources.

ASPIRE TO INSPIRE



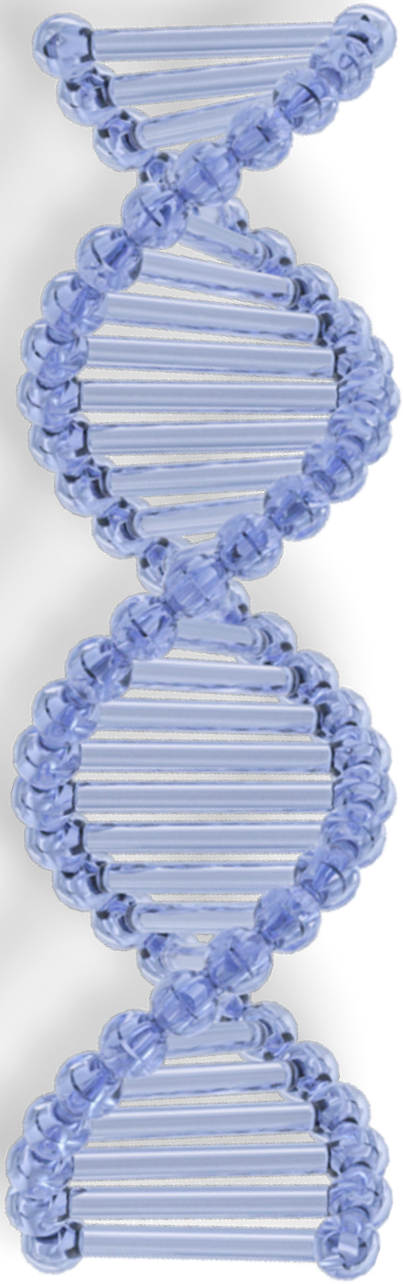
Q4. Kindly give a detailed description of your current position.

I currently work with the Coimbatore-based Thamarai Research Foundation as a part-time research associate. To ensure effective communication between sponsors, investigators, and regulatory agencies throughout the study process, I am responsible for monitoring the projects, site management, data collection, and analysis, compliance and reporting, problem solving during the study process, protocol development, patient recruitment, and quality assurance.
As an Oral and Maxillofacial Oncology Consultant at MGM Cancer Institute in Chennai, my duties include organizing oral cancer screening camps, monitoring and treating oral tissues, educating patients, providing general dental treatment, coordinating and planning treatment, performing minor surgical procedures, collaborating with other departments, and managing follow-up care, research, and education. In addition, I am a general dentist and oral cancer specialist at The Dentist Next Door Dental Clinic in Chennai.

Q5. Any take-home messages for Oral & Maxillofacial Pathology graduates?

- Keep it simple and respect your core and specialty. It will return your love in unexpected ways.
- Determine your area of expertise and accept any position that falls within it. Furthermore, a job is not bad until it provides for you. Take on any task that comes your way while also searching within for opportunities.
- The field of Oral & Maxillofacial Pathology is ever-evolving. Stay curious and committed to lifelong learning—engage with new research, attend workshops, and utilize platforms like LinkedIn to connect with peers and mentors.
- Emphasize the importance of collaboration within multidisciplinary teams. Develop close ties with oral surgeons, oncologists, and other medical specialists because your knowledge is essential for identifying and treating complicated cases.
- Lastly, promote patient awareness and education regarding oral health concerns. In addition to diagnosing, you are responsible for educating patients on early detection and prevention. Your relevant contributions can greatly impact the field's advancement and patient outcomes.

"...IT IS OFTEN THE SMALL STEPS NOT THE GIANT LEAPS, THAT BRING ABOUT THE MOST LASTING CHANGE ."



PERSONALIZED PERIODONTAL DISEASE - OUTCOME OF EPIGENETIC ALTERATIONS IN PERIODONTIUM

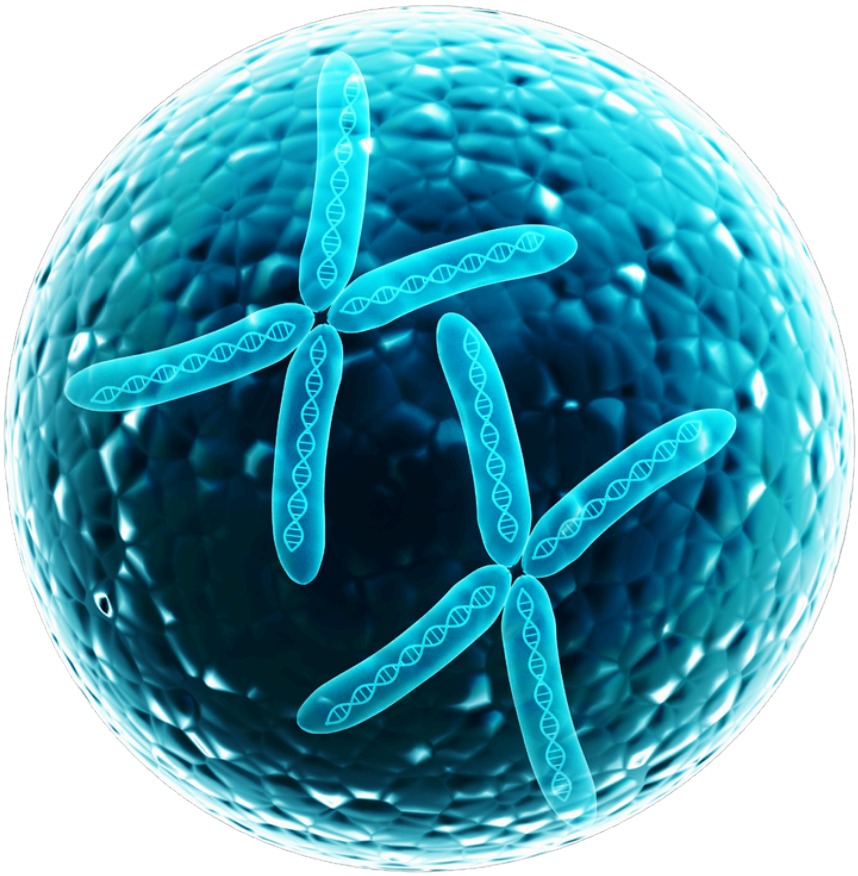
Dr. Rujuta Patil

Periodontist, Oral Cancer Screening Consultant, Government of India
Certified Clinical Research Trainer

Periodontitis is the 6th most prevalent chronic inflammatory disease worldwide (1). The homeostatic imbalance in the epithelium and connective tissue and dysregulated host-immune-inflammatory reaction lead to periodontitis. Swollen bleeding gums, bone loss, and loose teeth characterize it. The loss of teeth, not limited to one but all is the most devastating outcome of periodontitis. The quality of life of patients deteriorates with the severity of the disease. Tartar (plaque) is considered the major culprit in causing periodontal disease. Periodontitis is a disease of a lifetime; it requires proper and timely maintenance. Finding the right etiology is the key to arresting periodontal disease progression. With the advent of technology and increased awareness, research has been widely expanded to explore other causes of periodontitis.

Periodontitis – A Multifactorial Disease

The periodontal treatment plan could be divided into three segments: 1- Removal of etiological factors, 2- Relieving symptoms, and 3- Reconstruction and regeneration of lost structures. Concerning periodontitis, the primary etiological factor is tartar, and its removal halts the disease progression but does not completely cure it. The etiology is not just limited to plaque and involves other factors such as smoking, chewing tobacco, stress, and comorbidities like diabetes mellitus, hypertension, thyroid disorders, etc. This makes periodontitis a multifactorial disease. The periodontal structures respond well to treatment, but complete regeneration of lost structures is yet to be achieved. The factors that determine plaque deposition are numerous. The severity of periodontal destruction is known to correspond with the amount of plaque and calculus deposited.



Periodontal Epigenomic Alterations – The Path Less Explored

Surprisingly, several cases present with a severe form of the disease with minimal or no plaque. This has also led to the discovery of genetic and epigenetic modifications as one of the underlying causative agents for periodontitis. The inherited changes in genome activity without causing any change in the DNA sequence per se are termed epigenetic changes and the study of the same is called epigenetics. It was initially coined by Waddington (2).

The epigenetic mechanisms include:

1- DNA methylation,
2- posttranslational modification of histone proteins,
3- noncoding RNA (ncRNA).

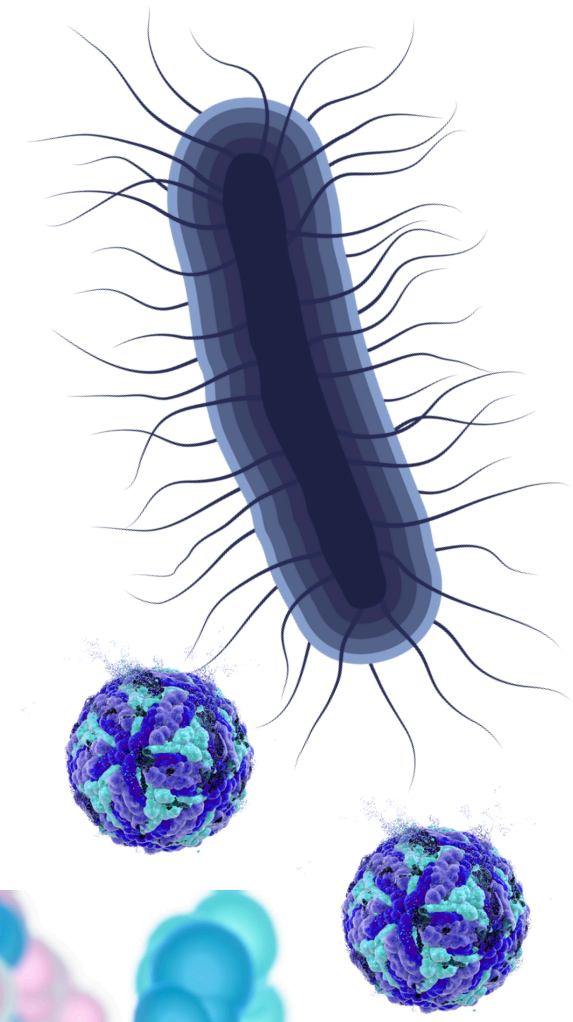
These alterations in the periodontal epigenome govern the magnitude of the host response to plaque biofilm, leading to 'Personalized Periodontal Disease' (2). The way every individual presents with periodontal disease is different. The same stimulus has the capacity to induce severe, moderate, mild, or even no disease in humans. This diversity in response to the same stimulus could be explained by epigenetics.

Encounters with pathogenic bacteria, allergens, or toxins trigger the host's immuno-inflammatory response in the periodontium. The activation of immune cells (both innate and adaptive) and inflammatory components (pro-inflammatory cytokines like IL-6, TNF-alpha, etc.) takes place simultaneously. It is both protective and destructive. The degree of activation determines the outcome of the disease. Epigenetic factors play a significant role in regulating this cycle of events. Evidence regarding periodontal epigenetic alterations is collected through in vitro and in vivo animal models as well as clinical studies. Some of the results include

1-DNA hypermethylation of IL-6, IL-1, TNF-α (Tumour Necrosis Factor-alpha), and TLR2 (Toll-Like Receptor2), which has shown an exaggerated host inflammatory response in gingival tissues obtained from periodontitis patients (2).

Consequences of TLR2 hypermethylation: TLRs play a role in recognizing pathogens and signaling innate immune activation. Dysregulation in TLRs negatively influences the host's response. It creates a hyper-pro-inflammatory environment and increases susceptibility to periodontitis. One of the overt consequences of altered TLR2 is hyperactivation of NF-kB (Nuclear Factor kappa B), resulting in bone resorption.

The consequence of Interleukin hypermethylation: Interleukins (e.g. - IL-6, IL-1) play a pivotal role in the initiation and progression of periodontal disease. They fall under the group of pro-inflammatory cytokines. Hypermethylation of the promoter region of DNA of IL-1 and IL-6 signals the host immune response to create a hyper-inflammatory state, resulting in significant damage to periodontal

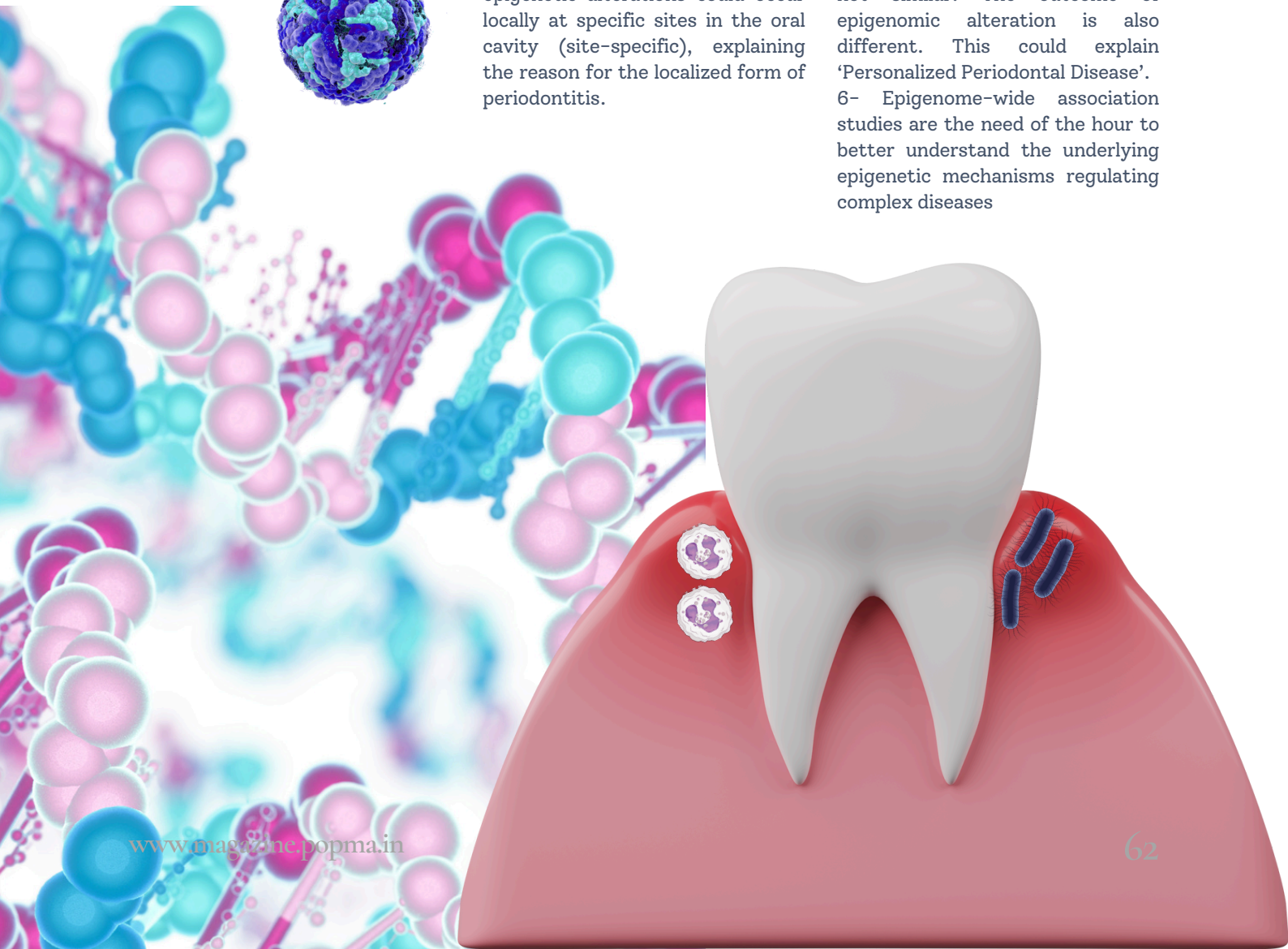


2- P. gingivalis-induced upregulation of CCL25 gene expression. This shows pathogen-mediated epigenetic alterations. Gingival epithelial cells infected by P. gingivalis and F. nucleatum have shown methylation modifications in the promoter region of DNA of various cytokine-producing genes. Consequences of CCL25 methylation modification: Modified CCL25 enhances the chemotaxis of macrophages and dendritic cells. Overactivated macrophages mediate tissue damage as a result of CCL25 dysregulation (2).

Consequences of MMP2 hypomethylation: T. denticola-induced hypomethylation of the MMP2 promoter has been shown to hyperactivate the MMP2 enzyme in periodontal fibroblasts, ultimately enhancing tissue destruction. The consequences of epigenetic changes on the occurrence and progression of periodontal disease could be significant. These epigenetic alterations could occur locally at specific sites in the oral cavity (site-specific), explaining the reason for the localized form of periodontitis.

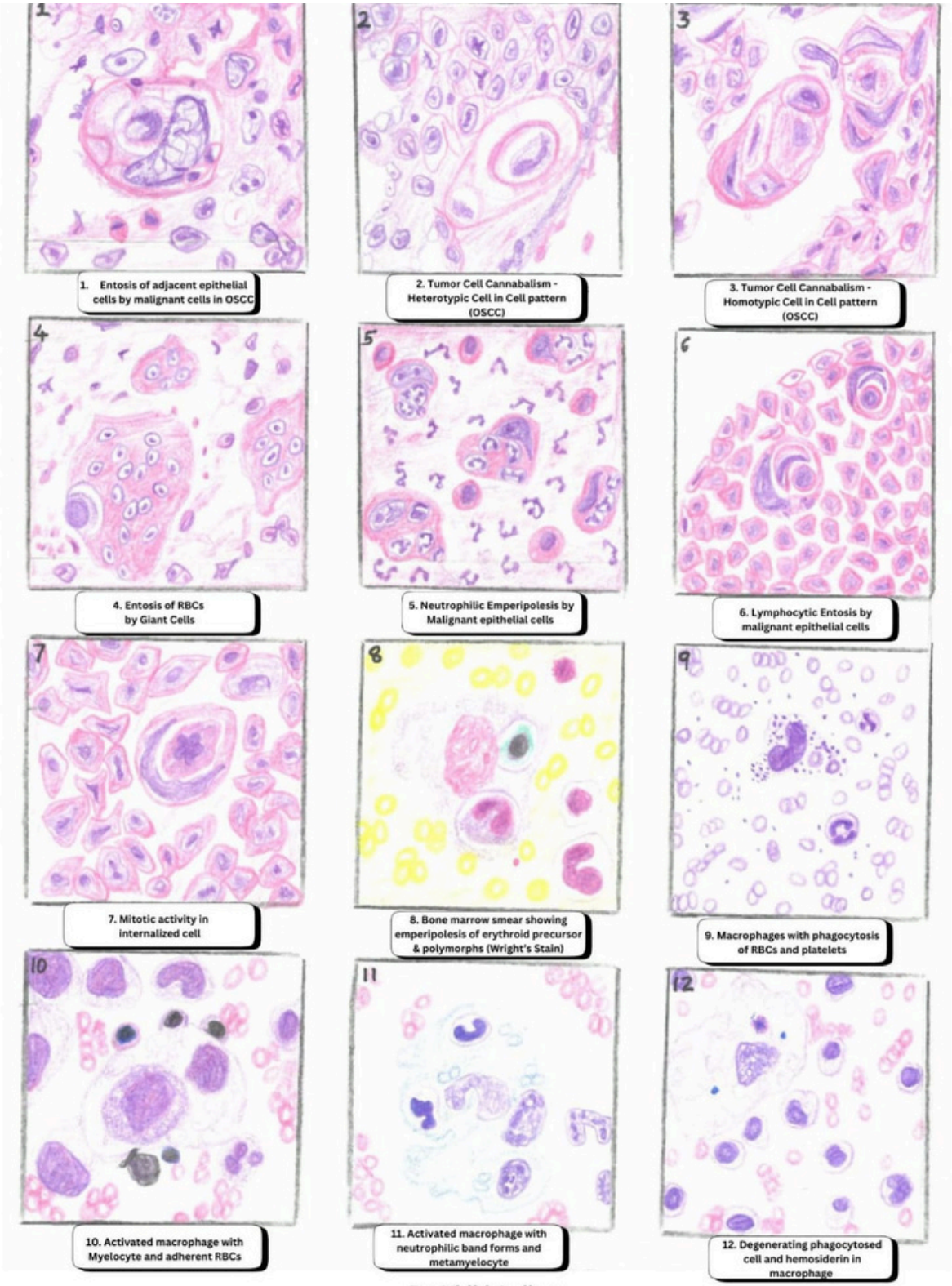
To summarize:

1. The way the body responds to any kind of insult/stimulus determines disease occurrence and progression. In the case of periodontitis, it is mainly the plaque biofilm (periodontopathic bacteria).
2. The host's immune inflammatory response is the driving force behind the fate of the disease.
3- Epigenetic alterations in key components of the host immune-inflammatory complex contribute to periodontal disease susceptibility and progression.
4- Microbial dysbiosis and negative environmental exposures significantly influence periodontal epigenetic modifications.
5- Periodontitis is an infectious inflammatory condition and shows a diverse response to external and internal stimuli among individuals. The way periodontitis presents is unique to every individual. Epigenetic modifications in two individuals with periodontitis are not similar. The outcome of epigenomic alteration is also different. This could explain 'Personalized Periodontal Disease'.
6- Epigenome-wide association studies are the need of the hour to better understand the underlying epigenetic mechanisms regulating complex diseases



Cell-in-Cell Phenomenon

Designing of an enigma



Dr. Nidhi Jadhav

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UNDERSTANDING THE DIFFERENCE

VERRUCOUS HYPERPLASIA VS. VERRUCOUS CARCINOMA

Dr. Bhuvan Nagpal, Founder - President, POPMA

Introduction

Verrucous lesions of the oral cavity represent a diagnostic challenge due to their overlapping clinical and histological features. Among these, Verrucous Hyperplasia (VH) and Verrucous Carcinoma (VC) are of particular interest. While these conditions may appear similar, their behavior, progression, and management differ significantly. This article delves into the critical distinctions between these two entities to provide a comprehensive understanding for clinicians and pathologists.

Historical Background

The term verrucous hyperplasia was coined by Shear and Pindborg, who also conducted detailed histological analyses to differentiate it from verrucous carcinoma. Interestingly, Ackerman and McGavran had already used the term earlier to describe precursor lesions to VC. This historical evolution underscores the necessity of refining diagnostic criteria.

Clinical Features

- Both lesions commonly affect the cheek mucosa, with gingiva and palate also being frequent sites.
- VH and VC often present in similar age groups, primarily in middle-aged and older individuals.
- An important observation is that only 26% of VH lesions occur at sites where the mucosa is “tied down” to bone (e.g., gingiva and palate), compared to 53% in VC, suggesting distinct growth patterns.

Diagnostic Challenges

Key Clinical and Histological Features

1. Growth Patterns:

VH: Exclusively exophytic with discrete and solitary lesions.

VC: Exhibits both exophytic and endophytic growth patterns, involving deeper structures.

2. Rete Processes:

VH: Rete processes are pointed, slender, and keratinized.

VC: Broader, blunt rete processes resembling "elephant feet" in histological sections.

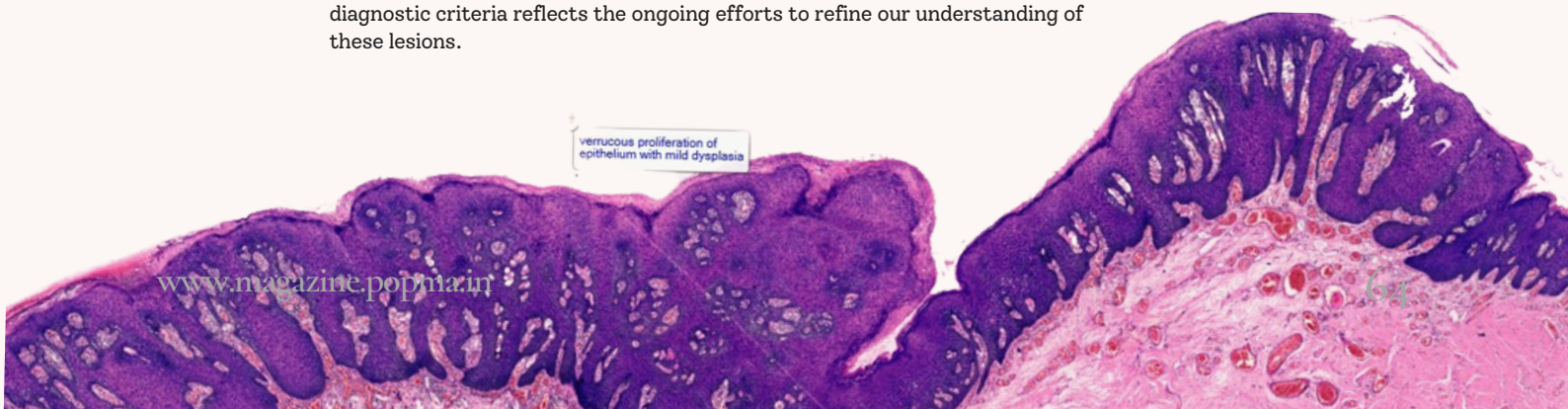
3. Cytological Atypia:

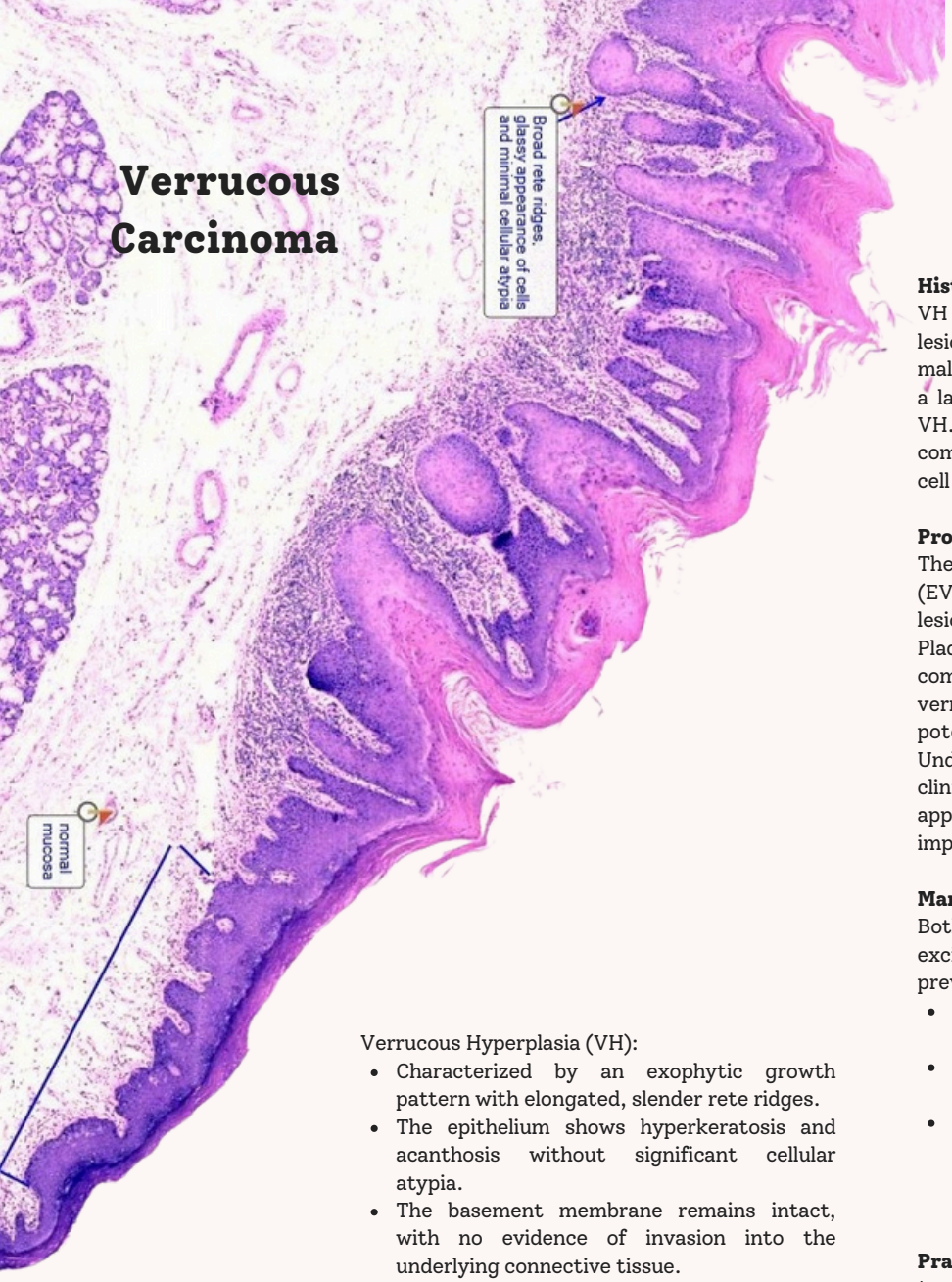
Present in VC but absent or minimal in VH.

4. Downward Invasion:

VC shows epithelial extension beyond the basement membrane into the lamina propria, a hallmark feature absent in VH.

Verrucous Hyperplasia and Verrucous Carcinoma, while sharing some features, represent distinct entities in the spectrum of verrucous lesions. Clinicians must exercise precision in diagnosis, backed by histopathological evidence, to ensure accurate treatment. The evolution of terminology and diagnostic criteria reflects the ongoing efforts to refine our understanding of these lesions.





Verrucous Carcinoma

Verrucous Hyperplasia (VH):

- Characterized by an exophytic growth pattern with elongated, slender rete ridges.
- The epithelium shows hyperkeratosis and acanthosis without significant cellular atypia.
- The basement membrane remains intact, with no evidence of invasion into the underlying connective tissue.

Verrucous Carcinoma (VC):

- Exhibits a broad, pushing invasion into the underlying stroma with bulbous rete ridges.
- The epithelium is well-differentiated but demonstrates minimal cytological atypia.
- Keratin-filled crypts and parakeratosis are often present.
- Despite its invasive nature, VC typically lacks metastatic potential.

Histopathological Distinction

VH is considered a precursor or reactive lesion, while VC is classified as a low-grade malignancy. Absence of keratin plugging and a lack of induration are cardinal features of VH. Both lesions, however, may share common histological features such as basal cell hyperplasia and acanthosis.

Proposed Terminologies

The term Exophytic Verrucous Hyperplasia (EVH) has been suggested to define VH lesions with purely exophytic growth. Plaque-type verrucous lesions are now more commonly referred to as proliferative verrucous leukoplakia, highlighting their potential for malignant transformation.
Understanding these distinctions is vital for clinicians and pathologists to ensure appropriate treatment strategies and improve patient outcomes.

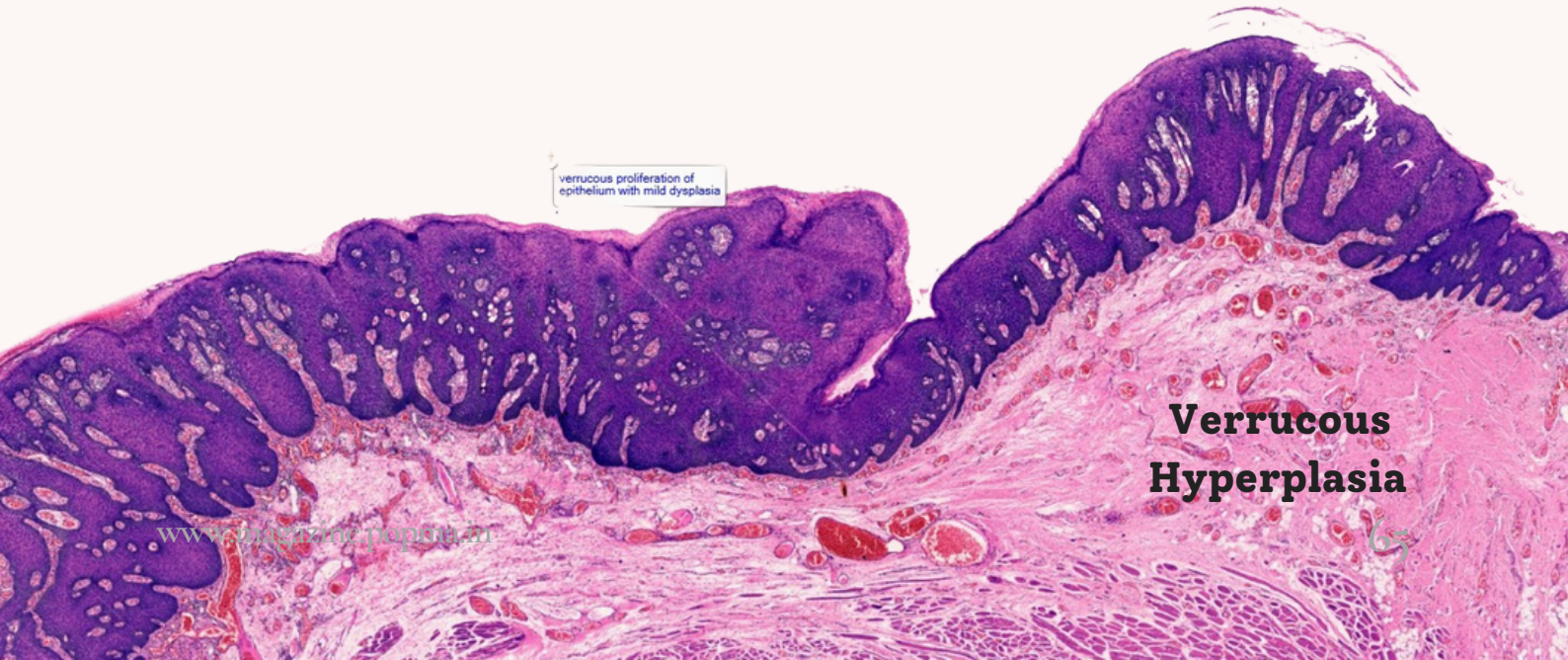
Management Guidelines

Both VH and VC necessitate complete excision to ensure adequate management and prevent progression. However:

- VC often requires wider margins due to its invasive potential.
- VH, though benign, may recur or progress to VC if incompletely excised.
- Pathology reports must emphasize the degree of dysplasia and the possibility of malignant transformation. Vigilant follow-up is crucial.

Practice Points

1. Accurate Biopsy: Adequate sampling, including deep tissue margins, is necessary to distinguish VH from VC.
2. Collaboration: Close communication between surgeons and pathologists ensures optimal treatment.
3. Surveillance: VH lesions with dysplastic features require careful monitoring to mitigate progression risks.



Verrucous Hyperplasia

Cemento osseous dysplasia : A Case Report

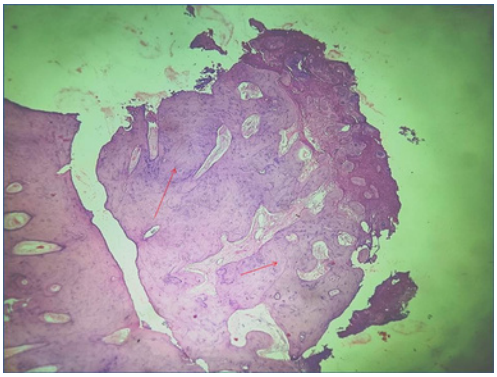
Dr Abhishek Banerjee
Associate Professor
Department of Oral and Maxillofacial Pathology
Awadh Dental College Hospital Jamshedpur
Adjunct faculty, Universitas Airlanga, Indonesia.

Cemento osseous dysplasia (COD) occurs in the tooth-bearing regions of the jaws and is one of the most common entity to be detected in the oral cavity. There are mainly three types of COD lesions that are focal, periapical and florid COD. The CODs usually requires no treatment, whereas the other two fibro-osseous lesions need surgical intervention.

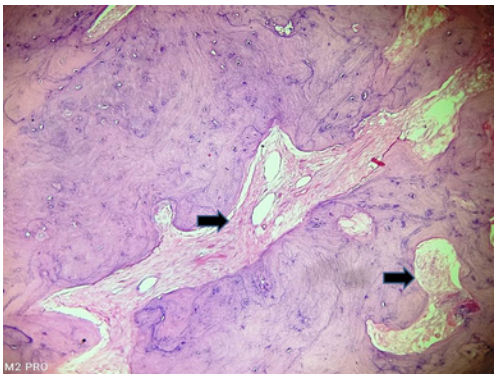
A young male patient of 27 years reported to the clinic complaining of swelling in the gingiva of the previously extracted area of 36, almost 2 years back. On clinical examination a mild swelling was observed in the region which was firm in consistency and non-mobile. On radiograph a well-defined radiopaque mass was seen in the bone resembling root stump. The mass was removed by guttering of bone and sent for histopathology. A provisional diagnosis of fibro-osseous lesion was given.

Histopathology reveals proliferating fibroblasts in the connective tissue with focal presence of moderate to rich cellularity. There is evidence of trabaculae of woven bone with varying levels of maturation seen interspersed in the section. There is evidence of loose fibromyxoid tissue with small neo-vascular channels, with no or scanty inflammatory component. The irregular trabaculae shows presence of small active osteocytes with prominent hyperchromatic nucleus with newly deposited matrix around. The matrix showed prominent reversal lines with all features of dysplastic bone. At focal area of rich cellular stroma, irregular globules of cementoid tissue can be seen which makes the interpretation as focal cemento-osseous dysplasia (FCOD).

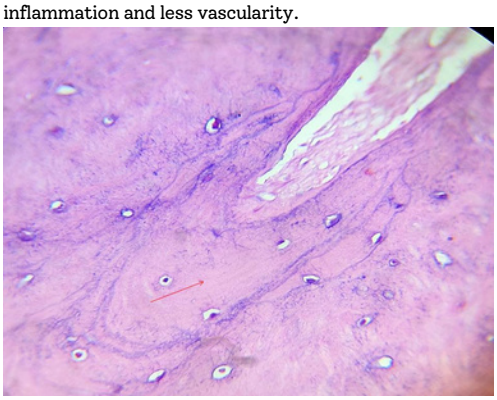
Management- the entire entity was surgically removed in-toto and sent for histopathology. The patient was kept under routine follow-up for next 6 months and no recurrence or discomfort was detected.



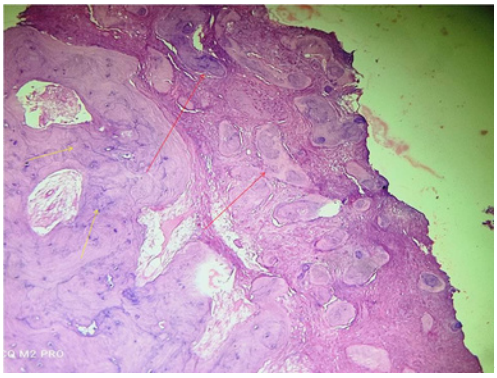
Irregular trabaculae of woven bone with varying maturation stages.



Dysplastic bony trabaculae shows central cores of loose fibromyxoid connective tissue with minimum inflammation and less vascularity.



Dysplastic osseous tissue showing features of incremental mineralization with osteocytes forming matrix.



Deposition in the focal area showing extensive proliferation of fibroblasts (Red) and disturbed bony matrix .

'MICROSCOPIC MOSAIC'

Dr. Jitisha J. Savalkar, Oral Pathology, GDCH Goa

Power of Simplicity in the High - Tech World: Impact of Biopsy on Treatment Decisions

Dr. Shivani Ramesh Mungala
Assistant Professor,
SVS Institute of Dental Sciences,
Mehbubnagar, Telangana

In the field of Oral Pathology, diverse diagnostic and treatment modalities provide unique perspectives, reflecting the discipline's evolving landscape. In recent years, advancements in techniques such as special stains, immunohistochemistry, Polymerase chain reaction (PCR), enzyme-linked immunosorbent assay (ELISA), Velscope, and flow cytometry have significantly transformed the diagnostic spectrum. Artificial intelligence (AI) is also gaining widespread attention, signaling an exciting future with limitless possibilities.

Despite these advancements, basic investigative modalities like clinical inspection, palpation, thorough history-taking, biopsy, and fine-needle aspiration cytology (FNAC) remain the cornerstone of routine practice. Among these, biopsy stands as the gold standard. Why does biopsy hold this status over other techniques? The reasons are evident: it is a relatively simple, cost-effective, minimally invasive, and easy-to-perform procedure. Most importantly, biopsy provides definitive answers to differential diagnoses, directly influencing patient treatment plans.

Biopsy resolves critical diagnostic questions and ensures precise treatment strategies. Different types of biopsies, including punch, incisional, excisional, and brush, offer tailored approaches based on the clinical scenario. However, challenges arise when clinicians delay or avoid performing biopsies due to a "wait and watch" approach, inadequate decision-making, or limited knowledge about oral lesions. Such delays can lead to lesion progression, worsening of the condition, delayed treatment, and poor prognosis.

Clinicians must embrace the principle that Prevention Is Better Than Cure. A common oversight is the management of periapical lesions, often treated with root canal therapy and antibiotics without further investigations.

If these lesions persist, re-evaluation or retreatment is required, leading to delays and potential complications. In some cases, seemingly benign lesions have been diagnosed as malignant due to the prudent decision to perform a biopsy and send the specimen for histopathological examination.

Biopsy plays a crucial role in identifying and grading dysplasia in precancerous lesions, enabling clinicians to track the progression toward carcinoma. Early detection through biopsy not only aids in effective management but also significantly improves a patient's outcomes. Hence, clinicians must remain vigilant and prioritize biopsies in their diagnostic toolkit to ensure optimal care for their patients. Biopsy, despite being a straightforward and valuable diagnostic tool, is sometimes overlooked by clinicians. In such cases, seeking opinions from multidisciplinary experts, including oral physicians, oral surgeons, and oral pathologists, can be highly beneficial.

While advances in the field are exciting and motivating, it is important not to overlook the beauty, simplicity, and usefulness of a biopsy

Illustration by Kimberly Carrera

ASPIRE TO INSPIRE

Dr. Swapnita Patil

MDS (Oral and Maxillofacial Pathology and Oral Microbiology)
Consulting Oral Pathologist at Ushahkal abhinav institute of medical sciences, Sangli, Maharashtra

Q1. Tell us about your academic background.

I have done my BDS from Tatyasaheb Kore Dental College and Research Centre, Kolhapur, and my MDS from Vasantdada Patil Dental College and Hospital, Sangli.

Q2. Why did you choose to study oral pathology?

I voluntarily enrolled in an Oral Pathology course for my postgraduation. My preference form only offered Oral Pathology as a choice.

Q3. Please tell us about your journey to your current role after earning your MDS degree.

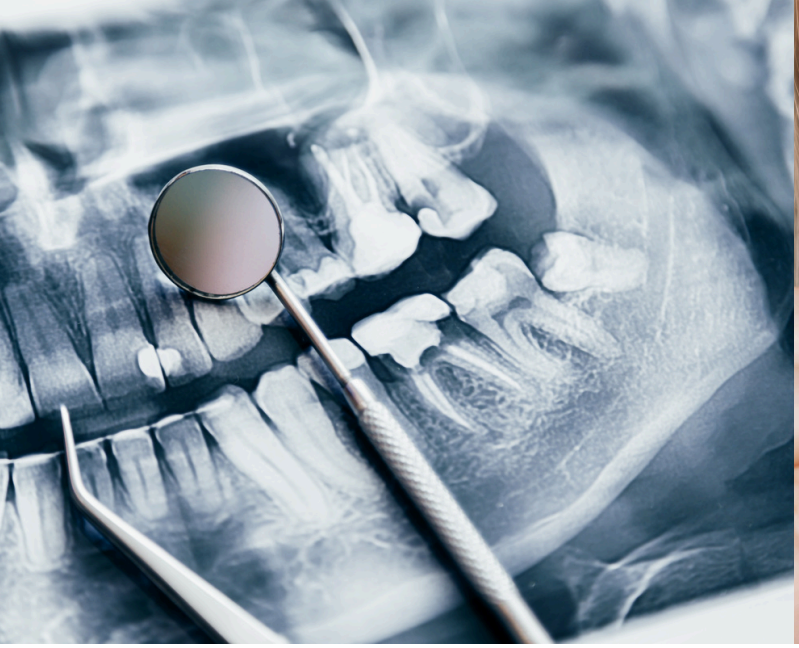
I was looking for a career in academics after finishing my MDS, but I was unable to do so. A multi-specialty hospital in my area hired me as a Consulting Oral Pathologist after I applied for the vacancy. I was extremely pleased with my job description. But regrettably, I had to answer a lot of inquiries about whether Oral Pathologists could sign laboratory reports! Subsequently, my HOD instructed me to serve as the laboratory administrator. However, I watched a video of Dr. Bhuvan Nagpal Sir in which he was discussing his concern over Oral Pathologists not signing laboratory test reports. He mailed me all the documents that helped me land a position as a Consultant at the same hospital after we spoke. Amid the hospital's general pathologists, I remained courageous and kept learning by reading books and gaining experience in laboratory reporting. I am still learning now, but I can confidently state that I am a PRACTICING ORAL PATHOLOGIST.

Q4. Kindly give a detailed description of your current position.

Along with reporting gross and oral histopathology specimens, I am also accountable for cases pertaining to hematology and clinical pathology. Apart from this, I oversee machine maintenance and quality control.

Q5. Any take-home messages for Oral & Maxillofacial Pathology graduates?

- Constantly question yourself whether what you have learned and what you accomplish are worthwhile.
- As dental practitioners with specialized training, we should never be viewed as non-clinical professionals.
- No matter what field you choose to work in, always give it your all and never lose hope in yourself.



"ORAL HYBRID LESIONS: WHAT PATHOLOGISTS NEED TO KNOW"

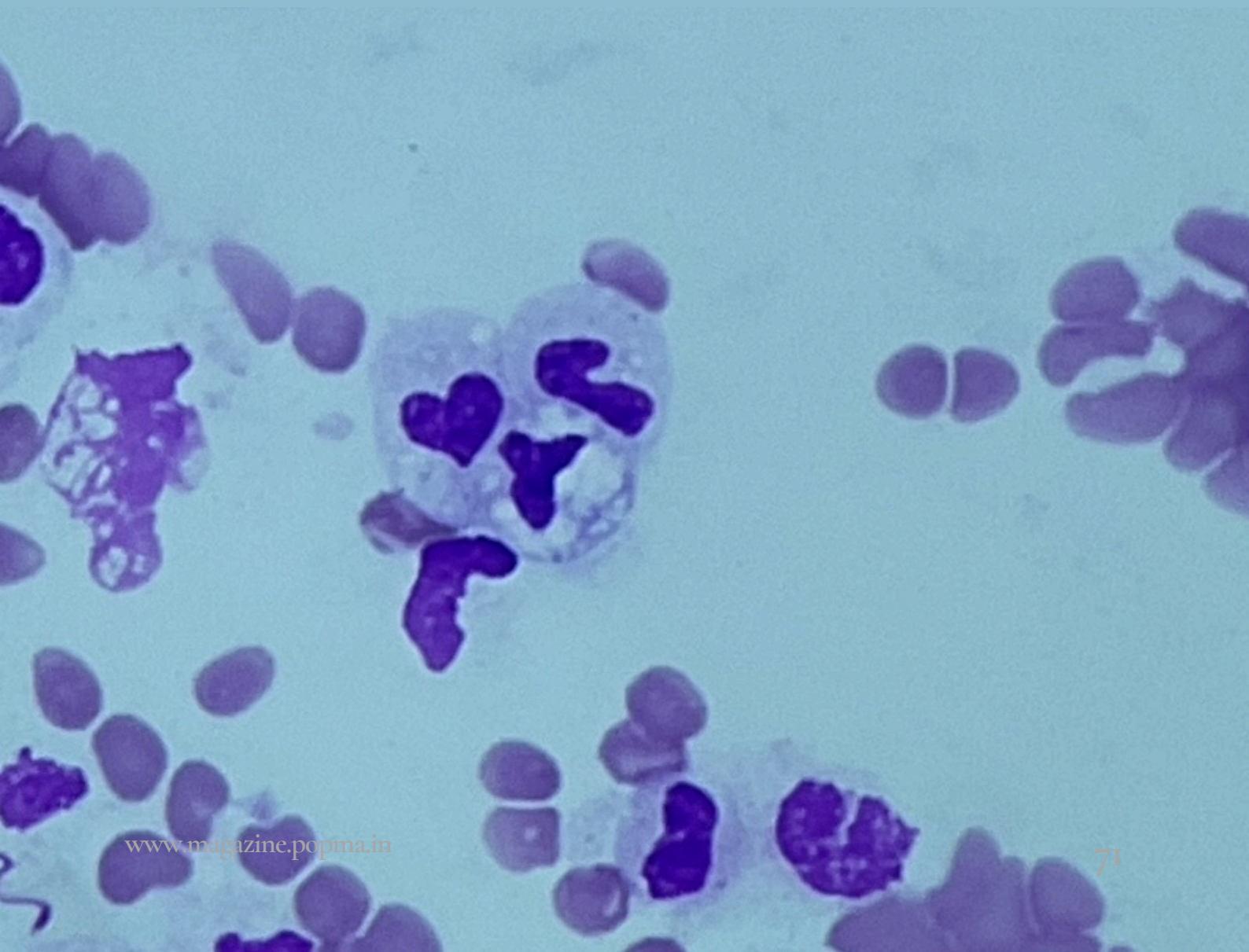
Dr. Chandana J

IInd Year Post Graduate Student

The term "hybrid lesions" in oral pathology was first introduced by Waldron and El-Mofty in their study of ameloblastomas, and it has since evolved to describe lesions that exhibit histopathological features from multiple, distinct entities. These lesions present a combination of both benign and malignant elements, making them a complex challenge for diagnosis and treatment. Hybrid lesions can manifest with nonspecific clinical symptoms such as swelling, pain, or ulceration, and may occur in various areas of the oral cavity, including the mandible, maxilla, or tongue. They often involve a mix of benign odontogenic tumors (such as ameloblastomas or cysts) and malignant tumors like squamous cell carcinoma, which makes their accurate diagnosis crucial. A comprehensive approach involving clinical examination, imaging studies, and histopathological evaluation is necessary to differentiate between the benign and malignant components of the lesion. Histopathology plays a pivotal role in identifying the specific features of the lesion and determining its behavior, helping to clarify whether it is benign, malignant, or a combination of both. This makes early recognition and accurate diagnosis essential for effective treatment and patient management.

For future oral pathologists like us, understanding the complexities of hybrid lesions is very valuable as these lesions require a high degree of diagnostic skill, as they present overlapping features that may easily be misdiagnosed without careful histological analysis. By recognizing the hybrid nature early, pathologists can tailor treatment plans to address both benign and malignant components, ensuring the best possible outcomes for patients. This article emphasizes the importance of a multidisciplinary approach like correlating clinical, radiographical and surgical findings also with the help of adjuvant diagnostic techniques like special stains which are cost-effective techniques and can dissolve the queries. Therefore, it is essential to diagnose and treat hybrid lesions, emphasize the need for oral pathologists and remain updated with emerging concepts and challenges within the field. By honing their diagnostic abilities and understanding the evolving nature of oral pathology, future pathologists will be better equipped to handle the intricate cases that hybrid lesions present, improving patient care and advancing their clinical expertise. Since it draws attention to the complexity of hybrid lesions, it is important for us as aspiring oral pathologists to stay updated on novel concepts and challenges. As there are no proper incidence or prevalence rates, there is a high probability that we might also encounter such lesions in our practice. Hence, a keen evaluation of the query cases is necessary.

'Love in Defence: The Neutrophil Connection'



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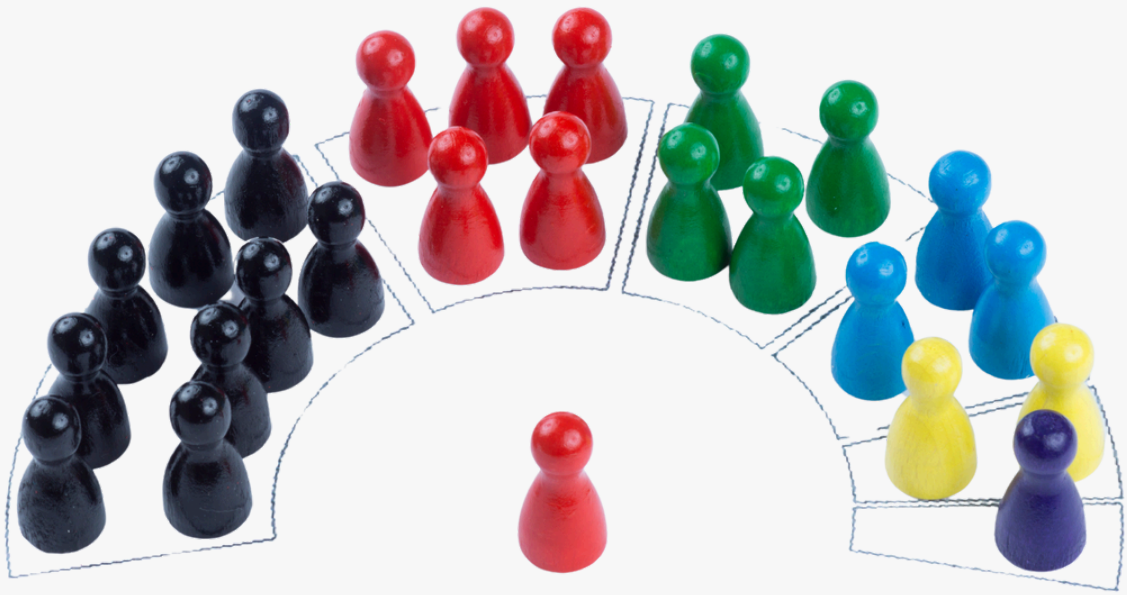

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