



# PINS & POSTS

VOLUME 10 ISSUE 2



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# EDITORS DESK



Artificial Intelligence (AI) has very quietly become part of our daily lives be it at home or work. This concept of using technology has changed the way we talk and listen to our patients in order to diagnose and plan a treatment.

The use of these AI tools have very positively increased our efficiency to work, to see what our eyes would have otherwise missed. So, it goes without saying that AI has elevated our standard of treatment. But, as we enjoy these advancements, we also need to ask ourselves 'where do we stand as dentists in this digital era?' The comfort, the empathy cannot be programmed into any machine....this is the very soul of our profession. These are the moments that define who we are.

So my dear friends, practice away with AI, but don't forget the real intelligence of dentistry lies in the human heart that chooses to listen, care and serve humanity.

**LET AI MAKE US SMARTER AND HUMANITY KEEP US KIND**

# EDITORIAL TEAM

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**CDCRI**  
**RAJNANDGAON**

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**TERNA DENTAL COLLEGE**  
**& HOSPITAL**  
**NAVI MUMBAI**



**DR. D L MALINI**  
**READER**  
**GDC & H , VIJAYWADA**

## SECTION HEADS

### DESIGN & LAYOUT



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**SCIENCES, NITTE DU**

### ENTERTAINMENT



**DR. NEETU MAURYA**  
**SENIOR LECTURER**  
**CDCRI**  
**RAJNANDGAON**



This landmark event was a resounding success and marked several milestones in the history of IACDE PG Conventions. With over 1300 delegates registered, the convention witnessed record-breaking participation, both in terms of academic submissions and scientific engagement.

A remarkable number of paper and poster presentations were made by postgraduate students, making this edition one of the most academically vibrant to date.





The grand inauguration ceremony was held in the presence of distinguished dignitaries:

- Dr. Dibyendu Mazumdar, Former President, Dental Council of India
- Dr. Aditya Mitra, President, IACDE
- Dr. Mohan, Hon. Secretary, IACDE
- Dr. R.K. Tiwari, Convention Chairman
- Dr. Rajeswari Gopal, Convention Secretary
- Dr. Anil Tomar, Organising Secretary





The scientific program was further enriched by an outstanding lineup of national and international faculty. The prestigious Oration Lecture was delivered by Dr. Girish Parmar, whose insights left a lasting impact on the audience. Two esteemed international speakers, Dr. Naji Kharouf from France and Dr. Imran Zainal Abidin from Malaysia, added a valuable global dimension to the sessions. The convention also featured renowned Indian speakers including Dr. Sanjay Tiwari, Dr. Shishir Singh, Dr. Aditya Mitra, Dr. Ajay Logani, Dr. Debojyoti Mazumder, and many more, who shared their expertise through impactful scientific lectures.

A series of pre-convention courses were successfully conducted on 4<sup>th</sup> April 2025 by eminent faculty members such as Dr. Mohan Kumar, Dr. Sonali Kapoor, Dr. Prashant Bhasin, among others. These sessions were well-attended and provided valuable clinical skills and updates to the attendees.











In addition to academics, the convention also focused on the holistic development and engagement of students through various cultural and co-curricular events. A Reel-Making Competition, Dance Competition, and Singing Competition were organized, which saw enthusiastic participation and showcased the creative talents of our postgraduate community.

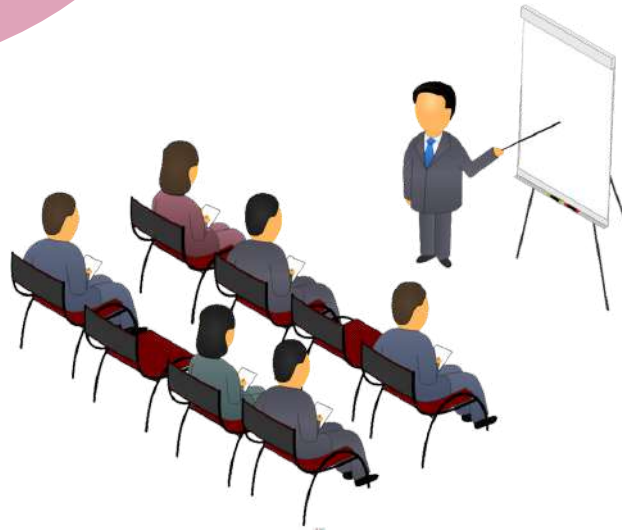
To foster networking and camaraderie, a Presidential Dinner was hosted in honour of the IACDE office bearers and dignitaries, and a vibrant Gala Dinner was arranged for all delegates and PG students—creating a perfect blend of academic excellence and cultural celebration.





**The success of the 25th IACDE National PG Convention is a reflection of the collective efforts of the IACDE leadership, the organizing committee, volunteers, participating colleges, and all our faculty and delegates.**





# ACTIVITIES at IACDE





# CASE BASED PANEL DISCUSSIONS





INDIAN  
ASSOCIATION  
OF  
CONSERVATIVE  
DENTISTRY &  
ENDODONTICS

# IACDE ACADEMIC ACTIVITIES 2025

**1** Case Based Panel  
Discussion on

TRAUMATIC INJURIES  
&  
MANAGEMENT

**12 MARCH 2025** 9AM - 10 AM  
MODE: ONLINE



**SCAN**  
To Join



**DR ADITYA MITRA**  
President IACDE



**DR RS MOHAN KUMAR**  
Hon. Gen. Secretary IACDE

## PANELISTS



**DR AJAY LOGANI**  
MDS  
Centre for Dental Education  
& Research, AIIMS, Delhi



**DR MS MUTHU**  
MDS PHD MFDSRCPS  
Shri Ram Chandra Institute of  
Higher Education & Research,  
Chennai



**DR MAMTA KAUSHIK**  
MDS  
E.C MEMBER IACDE  
Army College of Dental Sciences  
Programme moderator &  
Programme Co-ordinator



**DR MALINI D.L**  
EC Member IACDE  
Programme  
coordinator

**DR ANAND PATIL**  
EC Member IACDE  
Programme  
coordinator



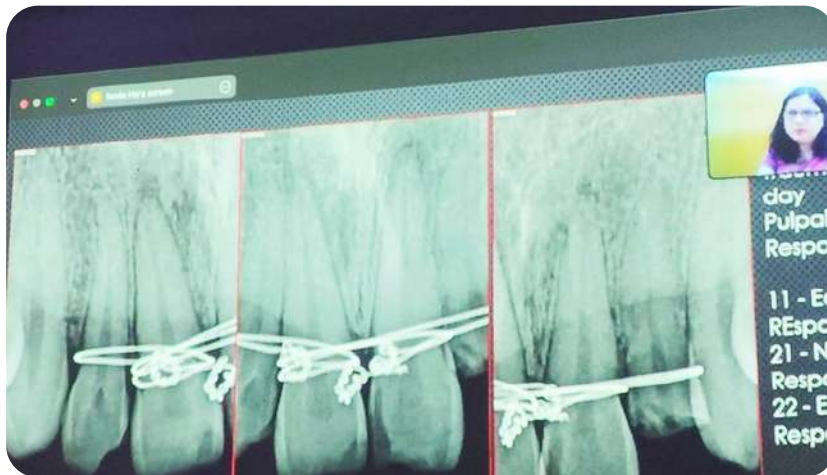
The Indian Association of Conservative Dentistry and Endodontics (IACDE) successfully launched the first session of its Academic Activities 2025 series with a highly engaging Case-Based Panel Discussion on Traumatic Injuries and Their Management. The session was held in online mode on 12th March 2025, from 9:00 AM to 10:00 AM, and witnessed an overwhelming response from across the nation.

Almost around impressive 1000 postgraduate students from various dental colleges and practitioners, faculty across India actively participated in the session, highlighting the growing interest and enthusiasm for advanced learning in the field of Conservative Dentistry and Endodontics. The interactive format of the discussion, combined with clinically relevant case presentations, made the session both informative and impactful for the attending delegates.



The session was graced by Dr. Aditya Mitra, President of IACDE, and Dr. RS Mohan Kumar, Honorary General Secretary of IACDE, both of whom emphasized the importance of continuous education, interdisciplinary dialogue, and the sharing of best practices in endodontic trauma management.

A distinguished panel of experts led the discussion: Dr. Ajay Logani (MDS), Centre for Dental Education and Research, AIIMS, Delhi, Dr. MS Muthu (MDS, PhD, MFDSRCPS), Shri Ram Chandra Institute of Higher Education & Research, Chennai, Dr. Mamta Kaushik (MDS), EC Member IACDE, Army College of Dental Sciences – Programme Moderator & Co-ordinator, Dr. Malini D.L (EC Member IACDE) – Programme Co-ordinator, Dr. Anand Patil (EC Member IACDE) – Programme Co-ordinator



Each panelist shared clinical cases highlighting various forms of dental trauma, diagnosis strategies, and contemporary management approaches. The cases covered a spectrum of real-world situations, fostering practical learning and encouraging critical thinking among the attendees. The discussion also addressed current treatment protocols, challenges in decision-making, and long-term follow-up considerations, offering attendees a comprehensive understanding of trauma care.

The session concluded with a dynamic Q&A segment, where participants engaged directly with the panel, gaining expert perspectives on specific queries and clinical scenarios.

This academic event marked a successful beginning to the IACDE's 2025 educational series and reaffirmed the association's dedication to fostering knowledge-sharing platforms for budding dental professionals. The enthusiastic participation of postgraduate students from across the country reflects the relevance of such initiatives and the high regard in which IACDE's academic efforts are held.



**IACDE**  
**ACADEMIC**  
**ACTIVITIES**  
**2025**

# INDIAN ASSOCIATION OF CONSERVATIVE DENTISTRY AND ENDODONTICS



Scan to join

## RESTORATIVE DRIVEN ENDODONTICS

### PANELISTS



DR. ADITYA MITRA  
PRESIDENT IACDE



PROF. DR. SHISHIR SINGH  
CONSERVATIVE DENTISTRY  
AND ENDODONTICS



PROF. DR. T.V.  
PADMANABHAN  
PROSTHODONTICS



DR. MALINI  
CO-ORDINATOR  
& PANELIST

**June 18th 2025, 9am to 10am Online mode**



DR. RS MOHAN KUMAR  
HON. GEN. SECRETARY  
IACDE



DR. MAMTA KAUSHIK  
CHIEF CO-ORDINATOR



DR. ANAND PATIL  
CO-ORDINATOR

The Indian Association of Conservative Dentistry and Endodontics (IACDE) successfully continued its Academic Activities 2025 series with a highly insightful online session on “Restorative Driven Endodontics”, held on June 18th, 2025, from 9:00 AM to 10:00 AM.

An impressive 250 participants—including postgraduate students from various dental colleges, practicing clinicians, and faculty members across India—actively took part in the event, reflecting a shared commitment to collaborative, evidence-based dental care.

Led by Dr. Aditya Mitra, President of IACDE, and Dr. RS Mohan Kumar, Hon. General Secretary of IACDE, the session highlighted the critical role of interdisciplinary planning in achieving optimal clinical outcomes in endodontics.



The expert panel featured: Prof. Dr. Shishir Singh, Conservative Dentistry and Endodontics, Prof. Dr. T.V. Padmanabhan, Prosthodontics, Dr. Malini D.L, Co-ordinator & Panelist, Dr. Mamta Kaushik, Chief Co-ordinator, Dr. Anand Patil, Co-ordinator.



The discussion focused on aligning endodontic procedures with long-term restorative success. Key topics included case planning from a restorative standpoint, selection of post systems, the ferrule effect, and preserving coronal tooth structure. The panelists also highlighted the importance of communication between endodontists and prosthodontists to ensure favorable outcomes. The session concluded with an engaging Q&A segment, allowing attendees to pose clinical questions and receive expert advice. This well-received session further underscored IACDE's dedication to fostering comprehensive and collaborative learning experiences that enhance clinical skills and patient-centered care.





**IACDE**  
**ACADEMIC**  
**ACTIVITIES**  
**2025**

# INDIAN ASSOCIATION OF CONSERVATIVE DENTISTRY AND ENDODONTICS



## ROOT CANAL DISINFECTION



**DR. ADITYA MITRA**  
PRESIDENT, IACDE



**DR. RS MOHAN KUMAR**  
HON. GEN. SECRETARY  
IACDE

### PANELISTS



**DR. S. BALAGOPAL**



**DR. KUNJAL MISTRY**



**DR. KIRAN KUMAR**

### CO-ORDINATORS



**DR. MAMTA KAUSHIK**  
E.C. Member



**DR. MALINI**  
E.C. Member

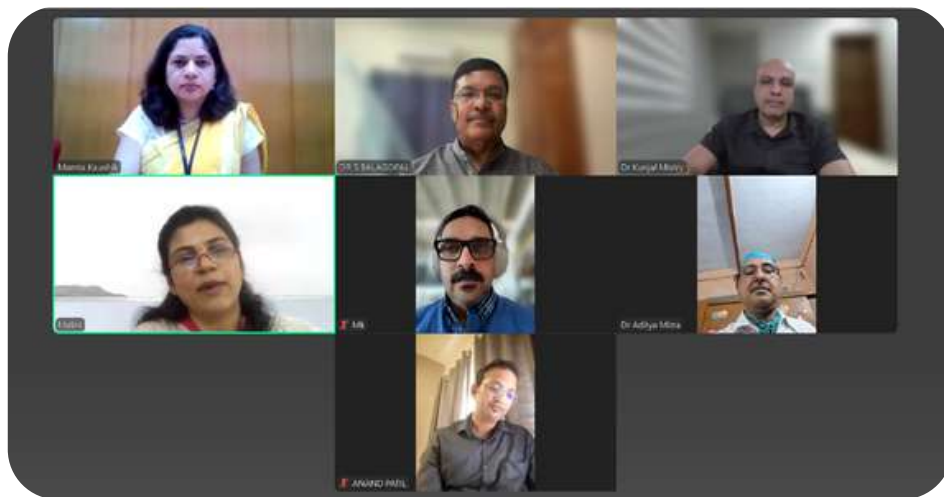


**DR. ANAND PATIL**  
E.C. Member

The Indian Association of Conservative Dentistry and Endodontics (IACDE) continued its Academic Activities 2025 series with a clinically enriching session on “Root Canal Disinfection”, held online on 11th July 2025 at 2:00 PM.

The session drew participation from 250 attendees, including postgraduate students, practicing clinicians, and faculty members from dental institutions across India, all eager to deepen their understanding of evidence-based disinfection protocols in endodontics.

Presiding over the session were: Dr. Aditya Mitra, President, IACDE and Dr. RS Mohan Kumar, Hon. General Secretary, IACDE



The discussion was expertly moderated and coordinated by Dr. Mamta Kaushik (E.C. Member, IACDE), who played a pivotal role in conceptualizing and leading the academic flow of the session. Her efforts in curating relevant clinical content and steering the panel discussion were instrumental in the session's success.

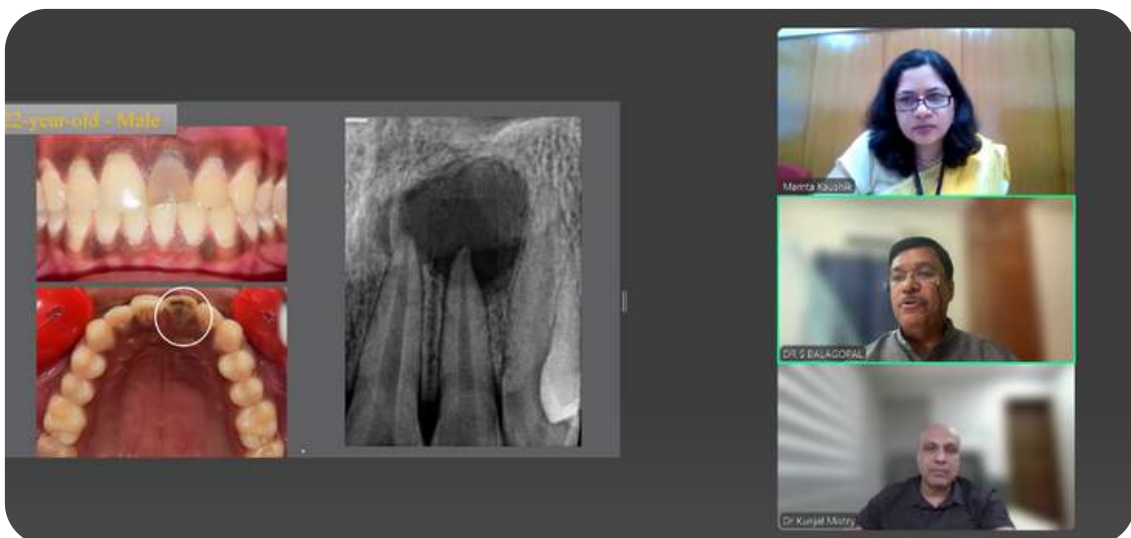
Panel of Experts: Dr. S. Balagopal, Dr. Kunjal Mistry & Dr. Kiran Kumar

Co-Coordinators: Dr. Malini D.L, E.C. Member & Dr. Anand Patil, E.C. Member.

The session focused on the critical aspects of root canal disinfection, addressing a comprehensive range of topics including irrigation protocols, canal decontamination, the role of intracanal medicaments, and strategies for overcoming complex root anatomy. Emphasis was laid on the biological objectives of disinfection and the importance of combining mechanical and chemical means to ensure treatment success.



Attendees gained clinical insights into the selection and use of medicaments like calcium hydroxide and triple antibiotic paste, chlorhexidine along with discussions on new-generation irrigants and activation systems. The concluding Q&A segment allowed participants to engage directly with the panelists and resolve real-world clinical queries. The event was very well received, with participants praising the clarity, relevance, and depth of discussion and widely acknowledged as key to the session's smooth execution and academic value. With each session, IACDE continues to foster clinical excellence and academic dialogue, empowering the next generation of dental professionals through focused, expert-led learning platforms





ARMY COLLEGE OF DENTAL SCIENCES  
IN ASSOCIATION WITH  
INDIAN ASSOCIATION OF CONSERVATIVE  
DENTISTRY AND ENDODONTICS

presents

# KALEIDOSCOPE 4

## 2k25



22-23 AUGUST 2025  
VENUE : ARMY COLLEGE OF DENTAL  
SCIENCES



**The Department of Conservative Dentistry and Endodontics, Army College of Dental Sciences, in collaboration with the Indian Association of Conservative Dentistry and Endodontics, organized “Kaleidoscope 4, 2k25”—a two-day national postgraduate conference held on 22nd and 23rd August 2025.**

**The conference brought together postgraduate students and academicians from across the country and was graced by eminent dignitaries, including Dr. P.V. Nandakumar Reddy, Vice Chancellor, Kaloji Narayana Rao University of Health Sciences (KNRUHS), Dr. Dibyendu Mazumdar, Past President, Dental Council of India; Major General Ajay Mishra, Chairman, ACDS; Dr. Aditya Mitra, President, IACDE; Dr. R. S. Mohan Kumar, Secretary, IACDE; along with Dr. Mamta Kaushik, Principal, ACDS and Head, Department of Conservative Dentistry and Endodontics.**





The event witnessed participation from 140 delegates representing more than 22 dental colleges, including members of the Dental Council of India, principals, and heads of departments of Conservative Dentistry and Endodontics. Dr. Dibyendu Mazumdar lauded the institution for its academic excellence, discipline, and immaculate organization of the event, appreciating the commitment of both faculty and students of ACDS.

Across two days, the scientific deliberations featured 11 keynote lectures and five panel discussions delivered by distinguished national experts. Scientific paper and poster presentations were conducted, providing a platform for 140 postgraduate delegates representing of various dental colleges to present original research and clinical case reports.



**Kaleidoscope 4, 2k25 served as an excellent academic platform, enriching postgraduate students with contemporary knowledge, clinical insights, and valuable interactions with eminent experts in the field of Conservative Dentistry and Endodontics.**



# UPCOMING ACTIVITIES



**Dr Jagat Bhushan**  
**Organising Secretary**

It gives us immense pleasure to invite you to the 40th Indian Association of Conservative Dentistry and Endodontics (IACDE) National Conference, to be held in the dynamic and picturesque city of Chandigarh from November 27 to 30, 2025.

As we celebrate IACDE's legacy of spreading knowledge through transmission of ideas, collaborations, interrelationships, this milestone event stands as a tribute to our collective pursuit of excellence in clinical skill, research, and innovation. The theme for this year, "R.I.S.E — Restorative Innovations and Successful Endodontics," encapsulates our vision for the future. It signifies the next leap in dental science—embracing advanced technologies, novel biomaterials, digital workflows, and evidence-based practices that are redefining restorative and endodontic care. R.I.S.E is not just an acronym; it's a call to elevate our profession, our passion, and our purpose.

The scientific program will feature renowned national and international experts sharing their pioneering work, alongside dedicated sessions for students, faculty, and researchers through paper presentations, posters, and table clinics. Engaging hands-on workshops, focused symposia, and live demonstrations will bridge the gap between research and real-world practice—empowering participants to translate innovation into excellence. Beyond science, the conference will offer vibrant cultural and networking experiences, blending the warmth of the dental fraternity with the spirit of Chandigarh—the City Beautiful.

Join us as we R.I.S.E together—redefining restorative dentistry, inspiring innovation, and celebrating success in endodontics.

# 40<sup>th</sup> IACDE National Conference 2025 Chandigarh



**RISE- Restorative Innovations and Successful Endodontics**

**27<sup>th</sup> - 30<sup>th</sup>  
NOVEMBER**

**Venue:  
Indradhanush Auditorium,  
Panchkula**



[www.iacde2025.com](http://www.iacde2025.com)



# Organising Committee

## Patrons



**Prof. Renu Vig**  
Hon'ble Vice Chancellor  
Panjab University  
Chandigarh



**Dr. Dibyendu Mazumder**  
Distinguished President  
(2012-2024)  
Dental Council of India

## Organising Committee



**Dr. Ashu Gupta**  
Conference Convener



**Dr. Sanjay Tiwari**  
Organising Chairman



**Dr. Jagat Bhushan**  
Organising Secretary



**Dr. Sachin Passi**  
Scientific Chairman



**Dr. Rajesh Joshi**  
Treasurer



**Dr. Kanwalpreet Bhullar**  
Joint Organising Secretary

## Welcome to The 40th IACDE National Conference

Dear Delegates,

We are pleased to invite you to the **40th IACDE National Conference 2025**, a landmark event uniting experts, academicians, and professionals in Conservative Dentistry and Endodontics. This conference promises an enriching experience with advanced research, clinical techniques, and engaging discussions, fostering growth and innovation in our domain.

The scientific program features keynote sessions, interactive symposiums, and hands-on workshops, providing a platform for learning, skill enhancement, and professional networking. With distinguished speakers and experts, this conference is designed to inspire innovation and excellence.

We are delighted to host this event at **Indradhanush Auditorium, Panchkula**, the venue offers seamless accessibility from Chandigarh and beyond. While here, explore the vibrant culture of "**The City Beautiful**," and nearby the serene landscapes of Himachal Pradesh.

We look forward to welcoming you to this exceptional gathering of insight and collaboration.

**Prof. Renu Vig**

Hon'ble Vice Chancellor,  
Panjab University, Chandigarh  
Patron

**Dr. Dibyendu Mazumder**

Distinguished President (2011-2024),  
Dental Council of India  
Patron

**Dr. Ashu Gupta**

Conference Convener

**Dr. Sanjay Tewari**

Organising Chairman

**Dr. Jagat Bhushan**

Organising Secretary

**Dr. Sachin Passi**

Scientific Chairperson

**Dr. Rajesh Joshi**

Treasurer

**Dr. Kanwalpreet Bhullar**

Joint Organising Secretary



## Pre-Conference Course Faculty



*Dr. Prateik Gupta*



*Dr. Kranthi Raja*



*Dr. Ritul Agarwal*



*Dr. Jeffrey Chang*



*Dr. Viresh Chopra*



*Dr. Simon Stone*



*Dr. R S Mohan*



*Dr. Vandana James*



*Dr. Abrar Sayed*



*Dr. Kiran Kumar N.*



*Dr. Sonali Kapoor*



*Dr. Rahul Grover*



*Dr. Rolly Aggarwal*



*Dr. Harshdeep S Multani*



*Dr. Rohit Kochharr*

# International Faculty



**Dr. Keiichi Hosaka**  
Japan

**Topic:**  
Advances in Adhesive Dentistry:  
Scientific Evolution and Clinical  
Application of a Modern  
Self-Etch Adhesive



**Dr. Simon Stone**  
England

**Topic:**  
Simplifying Surgery-Practical  
approaches for predictable  
outcomes



**Dr. Viresh Chopra**  
Muscat Oman

**Topic:**  
"Real world Retreatment  
strategies that work"  
Missed, Broken or Mishandled:  
Retreatment to the Rescue



**Dr. Jeffrey Chang**  
Hong Kong

**Topic:**  
"Minimal Invasive  
Endodontics"  
Truth or dare



**Dr. Abhishek Parolia**  
USA

**Topic:**  
Advanced Disinfection  
Technologies in Endodontics:  
Are We Doing Enough?



**Dr. Ritul Agarwal**  
Dubai

**Topic:**  
Psychology of Smile Design  
Basic of Smile Designing  
& Understanding the  
Psychology behind it



**Dr. David Alleman**  
USA



**Dr. Davey Alleman**  
USA

**Topic:**  
The Six Lessons approach to  
Biomimetic Restorative Dentistry

# National Faculty



**Dr. N Velmurugan**

**Topic:**  
Predictable Removal  
of Separated Endodontic  
Instrument



**Dr. Ajay Logani**

**Topic:**  
Endodontic Therapy for the  
Elderly: Unique Challenges,  
Special Considerations



**Dr. R S Mohan**

**Topic:**  
Cracks & Craze - Demystified



**Dr. Mithra Hegde**

**Topic:**  
Root Caries change in  
clinical pattern &  
management - a metagenomic  
approach



**Dr. Abrar Sayed**

**Topic:**  
Don't cut Corners - Craft  
solutions: Post Endodontic  
Restorations from Minimal  
Invasion to the Edge of  
the Extreme



**Dr. Vibha Hegde**

**Topic:**  
Styling Smiles: The Modern Way



**Dr. Kranthi Raja**

**Topic:**  
Integrating CBCT,  
Magnification and  
Reciprocation in Endodontics



**Dr. Mamta Kaushik**

**Topic:**  
Root resorption unveiling  
the silent saboteur



**Dr. Niraj Kinariwala**

**Topic:**  
Next -Gen Endodontics:  
Guided and Precise

## National Faculty



**Dr. Prateik Gupta**

**Topic:**  
Structural analysis of teeth  
- the 4C's - Your guide to  
decision making between  
direct & indirect restorations



**Dr. Neelam Mittal**

**Topic:**  
Beyond the Break:  
Innovative Management  
of Traumatic Tooth Injuries



**Dr. Abhishek Laha**

**Topic:**  
Indirect Composites



**Dr. Raksha Bhat**

**Topic:**  
The Last Step for a Lasting  
Impact: Finishing and Polishing  
in Anterior Composites



**Dr. Debojyoti Mazumder**

**Topic:**  
The Art and Science of Saving  
Teeth: Endodontic Surgery  
Unplugged



**Dr. Husain Rangwala**

**Topic:**  
Save the Unsavable:  
Deep Margin Elevation & the  
Biomimetic Revolution



**Dr. Kavalipurapu Venkata Teja**

**Topic:**  
How Do We Obsolete  
Them Right?

# **SYMPOSIUM** **GETTING YOUR PUBLICATION RIGHT**



**Dr. Suparna Saha**



**Dr. Shishir Singh**



**Col Dr. Sonali Sharma**



**Dr. Geeta Asthana**



**Dr. N VelMurugan**



**Dr. Sonali Taneja**

## SYMPOSIUM

# 'Invisible Enemies, Powerful Strategies Master Root Canal Disinfection for Predictable clinical Outcomes'



**Moderator**

**DR PAROMITA MAZUMDAR**



**DR PRATIMA  
SHENOI**



**DR ARVIND  
KUMAR**



**DR NIMISHA  
SHAH**



**DR MAHIMA  
DAND**



**DR S. MAHALAXMI**

Dr. Promila Verma >



< Dr. Smitha Reddy



## Symposium

Troubles Down The  
Canal-Insights on

**Mishaps in Endodontics**

Dr. Karthik Shetty >



< Dr. Afzal A



Dr. Srinidhi V Ballullaya  
**MODERATOR**



< Dr. Prahlad Saraf



< Dr. Swetha Chigurupati





# 26<sup>TH</sup> IACDE NATIONAL PG CONVENTION 2026

THEME : PRESERVE, RESTORE, INNOVATE

HOST : INDIRA GANDHI GOVT DENTAL COLLEGE, JAMMU

**10-12 APRIL 2026**



TOURISM PARTNER



PRINCIPAL SPONSOR



SHOFU DENTAL INDIA PVT. LTD.

KNOWLEDGE PARTNER



Department of Science and Technology (DST)



CSIR-IIIM

## PARTICIPATIONS

1500+ Delegates

15+ Guest Speakers  
(National & International)

1000+ Paper & Poster &  
Table Clinic Presentations

26<sup>th</sup> IACDE National PG Convention



**Venue:** Convention Centre, Govt of Jammu and  
Kashmir, Gulami Bagh, Canal Road, Jammu.

10 th April Indira Gandhi Govt Dental College, Jammu  
11,12 April Convention Centre, Jammu

[26thiacdepgcon2026.com](http://26thiacdepgcon2026.com)

The 26th IACDE National PG Convention would serve as a premier platform for learning, networking, and the exchange of knowledge among postgraduate students and delegates from across the country and abroad. With diverse educational backgrounds and research interests coming together, this convention offers an unmatched opportunity for personal and professional development.

This event aims to bring to the forefront of the scientific community the most recent advances in the field of restorative aesthetics, conservative dentistry, and endodontics. The scientific schedule includes various national and international researchers, scholars, and professionals who will be delivering keynote lectures and will discuss their latest findings and advancements. The event also includes the innovation in dentistry as part of scientific competition and Women Empowerment session to have active participation of women researchers.

Jammu, known as the Winter Capital of Jammu and Kashmir, offers a unique blend of natural beauty, spiritual heritage, and cultural richness. Set against the backdrop of majestic hills and historic temples, it provides the perfect setting to inspire thought, dialogue, and discovery.

The convention will feature an esteemed lineup of renowned speakers, engaging academic sessions, stimulating discussions, and cutting-edge research presentations. Beyond the academic program, a variety of social and cultural activities-including local sightseeing, heritage walks, cultural evenings, and gala dinners-have been thoughtfully curated to make your visit to Jammu both educational and enjoyable.

Join us in Jammu in 10,11,12 April 2026 to share your research, exchange ideas, and be part of a community dedicated to academic excellence.

Warm regards,

Dr Shamim Anjum

Organizing Secretary 26th IACDE National PG Convention 2026  
Jammu.

# PONDERING THOUGHTS



**DR. ANASWARA V**

The past two decades has witnessed remarkable innovations that have improved treatment precision and confidence. Artificial intelligence is taking centre stage, revolutionizing how dental professionals diagnose, plan, and treat patients. Artificial Intelligence, commonly known as AI, is a computing device that mimics human functions such as learning and problem-solving. The concept of AI was first proposed by Alan Turing in the 1950s. Later, in 1980, neural networks were used in medical diagnosis. It was in 2000 that AI-assisted dental radiograph interpretation came in. Present researches are on the integration of AI in diagnosis and treatment planning.

Various subsets in AI are used according to its use case. Machine learning, a subset of AI, is used to identify patterns and make decisions based on input data. Its applications include assessment of treatment success, prognosis and in decision trees. Deep learning is a further subset of Machine learning. It uses artificial neural network with many layers (so known as deep). Deep learning is used for image (radiograph) based lesion detection. Artificial neural networks are used for canal curvature risk prediction. Convolutional neural network is used for canal morphology detection like CBCT based MB2 canal detection.



The workflow for an AI model starts with dataset collection that can be either clinical records or 2D/3D radiographs. Preprocessing on these datasets is conducted next, including noise removal and edge enhancement. The next step is feature extraction where the particular use case of the AI model, like lesion detection or root fracture detection, is performed. Following which, algorithm selection according to the use case (either Machine learning or Deep learning) is selected. Model training is performed next, wherein 90% of the dataset is used and the rest 10% of the dataset is later used for evaluation of the model. This is followed by deployment and integration of the AI model.

AI's impact on dentistry spans multiple domains. In clinical applications, it enables more precise radiographic interpretations, early lesion detection, and accurate anatomical mapping. In administration, AI streamlines scheduling, billing, and record management, improving efficiency and reducing manual workload. For patient engagement, AI-driven chatbots and virtual assistants enhance communication, assist with appointment coordination, and support post-treatment follow-ups. Meanwhile, in education and research, AI platforms are helping simulate procedures, analyze clinical data, and personalize training experiences for dental students and researchers.

With continuous advancements in technology, AI is rapidly becoming an indispensable part of modern dentistry, supporting clinicians in delivering precise, efficient and patient focused care. The integration of AI marks the beginning of a smarter, data-driven era in dentistry, where precision meets compassion.

# SCIENTIFIC UPDATE



## ARTIFICIAL INTELLIGENCE—AIDED DIAGNOSIS In CONSERVATIVE DENTISTRY AND ENDODONTICS



DR. KANWALPREET KAUR BHULLAR  
HEAD OF THE DEPARTMENT  
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For centuries, dentistry was dependent on eyes, fingers, and intuition of the clinician. Magnification loupes refined our vision, digital radiography polished our insight, and cone-beam computed tomography (CBCT) revealed concealed anatomy. However, all these instruments still depended on one important filter: human mind, its virtues of experience but also its biases, tiredness, and limitations in pattern recognition.

Enter Artificial Intelligence (AI)—a technology previously confined to the realm of science fiction, today working subtly to revolutionize the diagnostic armamentarium of conservative dentistry and endodontics. <sup>1,2</sup> AI does not substitute the clinician; rather, it is an indomitable colleague, reading thousands of pixels per second, comparing them with patterns established from enormous datasets, and providing a "second opinion" in real time.

From initial caries detection to subtle diagnosis of vertical root fractures (VRFs) and apical radiolucencies, AI-assisted diagnosis has become a driving force behind precision dentistry. This essay describes how AI—particularly through machine learning (ML) and deep learning (DL) algorithms—has been utilized for diagnosis in conservative dentistry and endodontics, its clinical implications, drawbacks, and the way forward.

AI is a general term referring to computer systems that can execute tasks previously requiring human intelligence. In AI, machine learning allows systems to learn from data without direct programming, while deep learning—particularly convolutional neural networks (CNNs)—has transformed image understanding.

- CNNs model human vision processing, feeding input images through layers that discover edges, textures, and intricate structures.
- Artificial Neural Networks (ANNs) are more general, able to process structured and unstructured data for classification or prediction tasks.
- Hybrid models integrate imaging with clinical parameters to enhance diagnostic accuracy. <sup>3</sup>

In dentistry, the nature of radiographic, tomographic, and photographic data lends itself perfectly to AI's strengths in image recognition and pattern matching.

# AI in Conservative Dentistry – Diagnosis Reimagined

## 1. Caries Detection and Risk Assessment:

Dental caries is a dynamic process and early detection is key to minimally invasive treatment. Conventionally, visual-tactile assessment and radiographs have been the foundation, but inter-observer variation and early lesion elusiveness on 2D images curtails sensitivity.

AI models have overcome this by:

- Identifying proximal caries on bitewings and panoramics with similar sensitivity to expert clinicians.
- Staging lesions to facilitate decision-making between preventive and operative care.
- Combining patient history, diet, and salivary factors to produce individualized caries risk profiles.

## 2. Identification of Cracks and Fractures:

A) Cracks, particularly craze lines and incomplete fractures, tend to go unnoticed until advanced stages. AI-aided image analysis can:

- Improve digital radiographs using sophisticated filters.
- Recognize faint radiolucent lines within CBCT images corresponding to vertical root fractures (VRFs).
- Measure microfractures through algorithms processing wavelet characteristics.

Research with Probabilistic Neural Networks and Net-based CNNs have demonstrated encouraging sensitivity in detecting VRFs, even superior to general practitioners in controlled image sets.

## 3. Diagnosis of Non-Carious Cervical Lesions (NCCLs)

Although less noted, AI is starting to identify patterns of NCCLs in digital photographs, differentiating them from initial root caries. This can assist with preventive counseling and restorative planning.

# AI in Endodontics – Canal to Cortex

## 1. Pulpal and Periapical Diagnosis:

Endodontic diagnosis requires synthesis of history, clinical tests, and imaging—a process vulnerable to subjectivity.

AI software can be programmed to:

- Try to distinguish normal pulp, reversible pulpitis, irreversible pulpitis, and necrosis from periapical radiographs.
- High sensitivity detection of apical periodontitis on periapicals, panoramic and CBCT scans.

## 2. Working Length Estimation:

Proper working length (WL) estimation is the key to endodontic success. Apex locators and radiographs are routine, but AI offers:

- Automated tip and apical constriction detection in radiographs.
- Neural network adaptation with electronic measurements to account for anatomical differences.
- Multifrequency impedance analysis translated through ANNs for reliable WL prediction.

## 3. Canal Morphology Identification:

The intricate root canal anatomy, such as C-shaped canals and further MB2 canals, is challenging even with the use of CBCT. AI has:

- Automated the segmentation of pulp spaces and canals.
- Predicted canal shape from OPGs to assist preoperative planning.
- Lowered the requirement for repeated imaging adjustments during treatment.

Sherwood et al.'s DL model enhanced the identification and classification of C-shaped canals on CBCT, having the potential to decrease missed anatomy and retreatments.

#### **4. Predictive Diagnostics:**

AI can combine diagnostic imaging with clinical information to predict:

- Chance of treatment success or failure.
- Chances of retreatment need.
- Potential for post-surgical healing.

These predictive devices facilitate shared decision-making by allowing patients to consider options with precise, data-based likelihoods.

#### **Benefits of AI-Supported Diagnosis:**

1. Early Detection – Changes that are imperceptible to the human eye may be identified by AI, allowing for anticipation and intervention.
2. The consistency of AI outputs is unlike human interpretation, which is subject to fatigue or mood swings.
3. Speed – Real-time or nearly instantaneous analysis fits harmoniously within chairside workflows.
4. Augmented Decision-Making – AI provides a "second opinion," particularly useful in cases of uncertainty.
5. Education – AI-enabled simulators and feedback devices can expedite postgraduate skill development.

Keeping aside its revolutionary potential, AI-assisted diagnosis within conservative dentistry and endodontics is confronted with various limitations that should be recognized for equitable adoption. Foremost among them is the reliance upon the quality and representativeness of training datasets. Algorithms learned from images of particular populations, imaging equipment, or clinical environments cannot easily be generalized to other demographic groups or types of equipment and thus may deliver inconsistent diagnostic results. The "black box" characteristic of most deep learning algorithms creates another challenge—while they can deliver very accurate results, their decision-making process is inherently unclear, rendering clinicians incapable of completely explaining how a diagnosis was made.

Such uninterpretability may produce uncertainty in trusting AI-derived recommendations, particularly in high-risk or marginal cases. In addition, integration of AI applications into clinical practices is not necessarily smooth; without user-friendly software interfaces and compatibility with installed radiographic systems, installation will render activity less efficient instead of more efficient. There is also the danger of overdependence, in which clinicians would rely too heavily on algorithmic results and possibly neglect critical clinical signals that are outside the model's analytical range. Lastly, the price tag of sophisticated AI hardware and software licensing is steep for smaller clinics, inducing inequalities in access to such advanced technology.

The exponential adoption of AI in dental diagnosis triggers pertinent ethical and regulatory issues that need to be handled to ensure patient well-being and professional integrity. The handling of patient radiographs and clinical history for training AI raises privacy concerns and requires strict adherence to data protection legislation and robust anonymization processes. Informed consent in secondary clinical data use should be open so that patients know how their data help in the construction of algorithms. Algorithmic bias is also a possibility if training data unevenly represent some age ranges, ethnic groups, or levels of disease severity and subsequently produce unequal diagnostic results. Regulatory agencies need to actively set visible performance standards for AI-based diagnostic devices so that they are commensurate with or higher than accepted clinical benchmarks prior to market authorization. Just as critical is post-market monitoring to identify performance drift with time, particularly as disease distributions, imaging modalities, and population demographics change. Ethical practice requires that AI be a tool, not an independent decision-maker; final responsibility for diagnosis and treatment planning must remain with the clinician, who may use algorithmic information to augment patient history, examination results, and professional expertise.

Future development of AI-assisted diagnosis in conservative dentistry and endodontics will probably be characterized by breakthroughs that overcome existing limitations of accuracy, interpretability, and accessibility.

One promising direction is the creation of explainable AI (XAI) platforms, capable of pointing out individual areas of a radiograph or CBCT image that contributed to the algorithm's choice, thus building trust and aiding clinician–patient communication. The incorporation of multimodal information—converging radiographic features with pulp sensibility test data, clinical images, and patient-specific risk indicators—may lead to diagnostic models with unprecedented accuracy and individualization. Cloud-based platforms for AI could democratize access by enabling even small, resource-constrained clinics to access high-performance algorithms without the cost of local high-priced hardware.

On a broader scale, establishment of national or international radiographic archives with standardized annotations would facilitate training more diverse, robust models that can perform reliably across diverse clinical settings. In the operatory of tomorrow, AI will probably be integrated directly into chairside imaging software, providing real-time feedback to augment the clinician's workflow without interrupting it. The success of these technologies in the future will rely on technical performance but also on continuous cooperation between researchers, clinicians, regulators, and ethicists to ensure the responsible and equitable implementation into patient care.

# ASK THE EXPERTS



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## **BOON OR BANE : ARTIFICIAL INTELLIGENCE IN SCIENTIFIC WRITING PROTOCOLS**

Artificial Intelligence (AI) technologies have significantly impacted academic writing by introducing various tools and methods that enhance the writing process. These technologies can analyse text, provide suggestions, automate citation, and even generate content. Several key AI technologies are instrumental in transforming academic writing. Automated writing assistants, such as Grammarly and Microsoft's Editor, utilize both NLP and ML to assist writers in real-time. These tools check for grammar, spelling, style, and provide contextual suggestions. They are designed to help students and researchers produce more polished and professional documents. Citing sources accurately is a critical aspect of academic writing. AI-based citation tools, such as Zotero and EndNote, help automate the process of generating and organizing citations and bibliographies. By utilizing AI, these tools can format references according to various citation styles and ensure consistency throughout the document.

Artificial Intelligence (AI) has revolutionised scientific writing by enhancing efficiency, accuracy, and productivity. AI-powered tools can assist with various stages of writing, including:

#### Literature Review

- **Speed and Efficiency:** Drastically reducing time spent on manual literature searches.
- **Comprehensiveness:** Scanning a broader range of publications than humanly possible.
- **Trend Identification:** Spotting emerging themes and research fronts more quickly.

#### Writing Assistance

- **Grammar and Spell Checkers:** Tools like Grammarly and Hemingway Editor help detect and correct language inaccuracies.

**Citation Management:** AI-based citation tools like Zotero and EndNote automate the process of generating and organizing citations.

## **Data Analysis and Visualization**

- **Statistical Analysis:** AI facilitates data analysis through tools like SPSS, SAS, and Tableau.
- **Data Visualization:** AI can automatically generate figures, tables, and other visual elements for manuscripts.

The concerns about the potential misuse of AI in scientific writing, are:

- **Plagiarism Detection:** AI-powered tools can detect plagiarism, but they can also be used to circumvent originality.
- **Bias and Objectivity:** AI algorithms can perpetuate existing biases if not properly managed.
- **Authenticity:** Over-reliance on AI tools can compromise the authenticity and originality of scientific work.

Integration of AI in academic writing has many ethical challenges which must be addressed to ensure responsible use. Key issues are ethics, bias, data privacy intellectual property issues and transparency. To harness the benefits of AI in scientific writing while maintaining academic integrity, researchers and institutions must develop guidelines and regulations for the responsible use of AI tools. In summary, AI technologies, particularly NLP, ML, and automated writing assistants, have revolutionized academic writing by providing advanced tools that enhance efficiency, accuracy, and overall writing quality. As AI continues to evolve, it is expected that these technologies will become even more integrated into the academic writing process, offering increasingly sophisticated support to writers.



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# **ARTIFICIAL INTELLIGENCE IN ENDODONTICS**

Artificial intelligence (AI) has emerged as a transformative tool in modern endodontics, offering unprecedented precision in diagnosis, treatment planning, and clinical outcome prediction. By utilizing machine learning, deep learning, and advanced data-driven algorithms, AI systems can analyse complex datasets—such as periapical radiographs, cone-beam computed tomography (CBCT) scans, and clinical records—with a level of speed and consistency that surpasses traditional human interpretation. These technologies enhance the detection of subtle anatomical variations, including additional canals, isthmuses, root curvatures, and early periapical lesions that may otherwise be overlooked. AI-assisted image segmentation and pattern recognition streamline diagnostic accuracy and reduce operator-dependent variability.

In clinical practice, AI supports the endodontist by predicting treatment difficulty, estimating prognosis, and identifying potential complications before they occur. Algorithm-based decision support systems guide clinicians in designing minimally invasive access cavities, determining optimal working length, and selecting appropriate instrumentation strategies. Furthermore, AI-driven workflow integration facilitates automated charting, documentation, and outcome tracking, contributing to greater efficiency and standardization of care. Emerging applications—such as robotics, haptic simulation for training, and real-time treatment monitoring—further highlight the expanding role of AI in the specialty.

Overall, the incorporation of artificial intelligence into endodontics represents a paradigm shift toward more accurate diagnostics, personalised treatment planning, and improved clinical outcomes. As technological advancements continue and larger annotated datasets become available, AI is expected to play an increasingly central role in achieving predictable, evidence-based endodontic therapy. With AI, endodontics moves from possibility to precision.

# BEYOND DENTISTRY



**DR ABITHA SESHADRI**

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**ARTISTRY, DENTISTRY, AND PAINT  
ALL CREATE BEAUTY THAT LASTS**



I am an endodontist by profession and an artist at heart. An alumna of SCB Medical College , Cuttack (BDS) and GDC , Nagpur (MDS), I am presently working as a consultant endodontist in Visakhapatnam and a Professor, SSDCRI, Srikakulam. I also take on art commissions and have shipped paintings to many places, national and international.



In matters of art, I am self taught, and consider myself a perpetual student.



The lockdown imposed by COVID , prompted me to pick up the brush after a gap of over a decade. I worked for a year during that period ,inspired by the works of Renaissance artists, dabbling in oil paints , trying to paint landscapes and seascapes, trying to understand the nuances of light . Then,I got drawn to the depiction of fur with dots and dashes, and experimented with pointillism , being drawn to the works of the Impressionists. My next foray was into watercolours, especially portraits showing the effects of time on the human face. Then, I chanced upon a portrait I had sketched over 20 years back and that made me pick up charcoal work.... The journey continues. In short, to refine realism on paper is what I endeavor.



**Why do I paint...**

**We engage with the world to understand it better. As an artist, you imagine how things can be and create that vision for others. You paint, not knowing where it will lead you. It is a process of discovery where, at every moment, you are just following a vision that you can barely see. In doing so, you create a thing of beauty which resonates with the viewer. I paint, not to tell the viewers what to see, but to know from them what they saw.**



**Every painting speaks to the viewer. I would like to know what you feel when you see my work.**

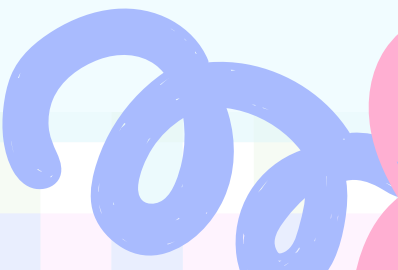
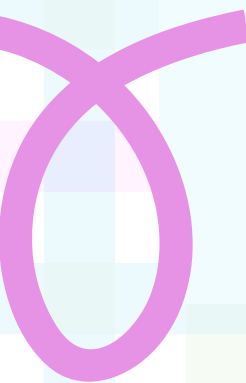


ENTERTAINMENT GALLERY



ROOTPLAY

ARCADE



# RootRush Crossword



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| P | U | L | P | V | I | T | A | L | I | T | Y | P | N | L |
| X | E | N | T | E | T | S | N | I | G | M | U | S | E | A |
| C | E | R | T | E | S | T | I | N | G | M | E | M | E | S |
| S | E | N | S | L | P | L | A | T | I | C | S | I | N | E |
| A | C | C | R | E | E | O | A | D | O | P | P | L | E | R |
| E | L | L | N | C | C | O | D | A | O | P | L | U | S | E |
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| J | P | U | L | R | F | P | V | T | A | I | L | I | T | Y |
| T | L | E | O | I | I | X | I | O | M | T | R | X | X | N |
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**LASER**

**DOPPLER**

**FLOWMETRY**

**PULSE**

**OXIMETRY**

**ACCURACY**

**SENSITIVE**

**ELECTRIC**

**PULP**

**TESTING**

**VITALITY**

**SPECIFIC**



# CONSOFill

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HINT - IRRIGATION ACTIVATION SYSTEM

# Restendo Jumble



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CERACMIOIB

LENCIRVUE

3

4

GAOENPTH

SLIMIOBF

5

6

TENSISACER



# CONNECT WITH US



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# **NEWS LETTER OFFICE**

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