



Inderprastha Dental College and Hospital

46/1, Site IV, Industrial Area, Sahibabad,
Ghaziabad- 201010 (UP)



An IQAC initiative

IP Dental Insights

July - September 2024



Inderprastha Dental College at Sahibabad, Ghaziabad, India, stands out as a premier institution celebrated for its exceptional dental education and healthcare services.

Driven by a mission to provide comprehensive dental education and spearhead innovations in oral healthcare, the college boasts cutting-edge facilities and a passionate, dedicated faculty.

Students at Inderprastha Dental College embark on a transformative educational journey, benefiting from the mentorship of experienced professionals and extensive hands-on training.

The curriculum seamlessly blends theoretical knowledge with practical application, ensuring graduates are well-equipped to tackle the ever-evolving challenges of the dental field. Beyond academic rigor, the college nurtures a vibrant culture of research and community engagement.

This empowers students to explore groundbreaking advancements in dentistry and make meaningful contributions to society.

With its steadfast commitment to excellence and a profound dedication to enhancing oral health, Inderprastha Dental College continues to shape the future of dentistry in India and

July- September 2024

Revolutionizing Orthodontics: The Role of Digital Scanning and 3D Printing

By Prof (Dr.) Rahul Paul

Principal-Director, Inderprastha Dental College and Hospital

Orthodontics has always been a field driven by precision and innovation. Over the years, we have seen significant advancements that have continually improved patient outcomes and streamlined clinical practices. Among these, digital scanning and 3D printing stand out as transformative technologies that are revolutionizing the way we approach orthodontic treatment.

The Advent of Digital Scanning

Traditional orthodontic methods have relied heavily on physical impressions, which, while effective, come with their own set of challenges, including patient discomfort and potential inaccuracies. Digital scanning has emerged as a game-changer, offering a non-invasive, highly accurate alternative. With digital intraoral scanners, we can now capture detailed 3D images of a patient's teeth and gums in a matter of minutes. This not only enhances patient comfort but also significantly reduces the margin of error associated with manual impressions.



The Impact of 3D Printing

Once a digital scan is obtained, the data can be seamlessly integrated into 3D printing workflows. 3D printing technology has revolutionized the production of orthodontic appliances. Custom aligners, retainers, and even braces can now be manufactured with unparalleled precision and speed. This customization ensures a better fit and more effective treatment, reducing the need for adjustments and minimizing treatment times.

One of the most significant benefits of 3D printing in orthodontics is its ability to produce complex appliances quickly and cost-effectively. For instance, clear aligners, which are increasingly popular for their aesthetic appeal and comfort, can be produced in-house using 3D printers. This not only speeds up the delivery process but also allows for rapid iterations and adjustments as needed throughout the treatment course.

Looking to the Future

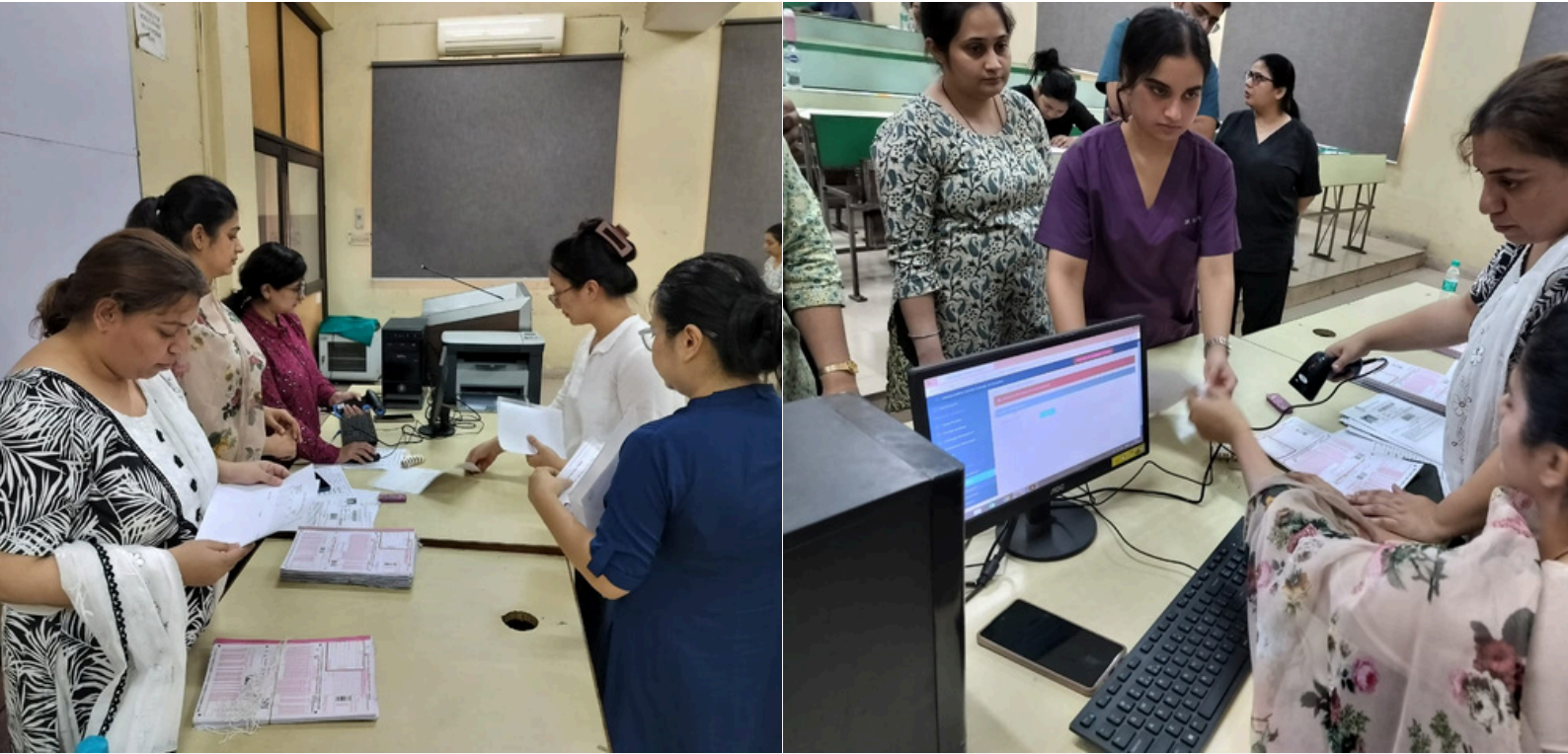
As we continue to explore the potential of digital scanning and 3D printing in orthodontics, it is clear that these technologies will play a crucial role in the future of dental care. At Inderprastha Dental College and Hospital, we are committed to staying at the forefront of these advancements. Our focus on integrating cutting-edge technology into our practice reflects our dedication to providing the highest quality of care to our patients.

Enhancing Treatment Outcomes

The combination of digital scanning and 3D printing enhances the overall quality of orthodontic care. The precision of digital models ensures that appliances fit better and work more efficiently, leading to improved treatment outcomes. Additionally, the ability to produce appliances quickly means that patients spend less time waiting and more time progressing through their treatment plans.

Furthermore, these technologies facilitate better record-keeping and treatment monitoring. Digital scans and printed models provide a permanent, accurate record of the patient's dental structures at various stages of treatment. This allows for better tracking of progress and more informed decision-making throughout the treatment process.

First exam by Atal Bihari Vajpayee University, Lucknow conducted at Inderprastha Dental College and Hospital, Ghaziabad



Dr. Rahul Paul, Principal of Inderprastha Dental College and Hospital, started the examination by wishing all students the best of luck. He encouraged them to perform with integrity and set a standard of excellence, marking this first exam under Atal Bihari Vajpayee University, Lucknow, as a significant milestone.

The examination process was conducted with advanced digital methods, ensuring a smooth, transparent, and fair experience.

Key Highlights of the Exam Process:

1. **Digital Registration:** All students registered online, linking their details to digital exam IDs, ensuring accuracy and eliminating discrepancies.
2. **Seating Arrangement:** A digital randomization system fairly allocated seats to prevent clustering, with the seating plan shared in advance with students and invigilators.

3. **Automated Attendance:** Students scanned digital IDs at the entrance, marking their attendance automatically and streamlining the check-in process.

4. **Monitored Exam Process:** Surveillance cameras monitored the exam hall, with live feeds available to the examination board for real-time supervision.

5. **Post-Exam Submission:** Answer sheets were scanned and uploaded digitally, ensuring secure and timely evaluations.

This tech-enabled approach underscored the institution's commitment to modernizing education and maintaining academic integrity.

July - September 2024

Registered Copyright by Inderprastha Dental College Orthodontic Roulette: Innovative learning method to learn Cephalometrics



Extracts
from the Register
of Copyrights

**WE ARE PROUD TO
SHARE THAT**

**THE INDERPRASTHA DENTAL
COLLEGE AND HOSPITAL**

has copyrighted

**"ORTHODONTIC ROULETTE"
INNOVATIVE LEARNING
METHOD TO LEARN
CEPHALOMETRICS**

registered
with the Copyright office,
Government of India



Inderprastha Dental College and Hospital, Sahibabad, Ghaziabad, proudly announces the copyright registration of "Orthodontic Roulette," an innovative learning tool created by the Department of Orthodontics and Dentofacial Orthopaedics. Designed to make the study of cephalometrics more engaging, this tool is a game-based method that enhances student understanding and retention of key concepts.

Orthodontic Roulette uses a fun and interactive game format to teach cephalometric analysis. Students engage in spinning a wheel or rolling dice to tackle various orthodontic scenarios, helping them grasp complex measurements and anatomy with ease.

This gamified learning method not only makes the subject more approachable but also strengthens critical thinking and diagnostic skills. The hands-on approach keeps students actively involved, promoting deeper understanding through participation.

The impact on students has been significant, as the interactive format enhances both retention and collaborative learning. Orthodontic Roulette equips students with the confidence and expertise needed to master cephalometrics.

By developing tools like Orthodontic Roulette, Inderprastha Dental College continues to lead in innovative dental education, providing students with cutting-edge methods to excel in their future careers.

July - September 2024

Registered Copyright by Inderprastha Dental College

Classification of Dental Effects on the basis of teeth surfaces involved



Inderprastha Dental College and Hospital, Sahibabad, Ghaziabad, is ecstatic to share the copyright registration of its latest innovation, "Classification of Dental Effects on the Basis of Teeth Surfaces Involved." This new classification system is a game-changing tool in dental diagnostics and treatment planning.

This system offers a structured method for analyzing and categorizing dental effects based on the specific surfaces of teeth involved. By making it easier to identify and evaluate the impact on each tooth surface, this approach ensures greater precision in diagnosis and more effective treatment strategies.

It provides a systematic approach that enhances learning and practical application in real-world dental care.

The vision behind this innovative system is to simplify complex dental analysis for students and professionals alike, helping them master the finer aspects of teeth surface anatomy.

This framework not only aids in more accurate diagnosis but also allows dental professionals to develop personalized treatment plans based on a clearer understanding of affected teeth surfaces. It empowers practitioners to deliver better patient outcomes by addressing dental issues more comprehensively.

By introducing this novel classification system, Inderprastha Dental College continues its commitment to advancing dental education and practice. This tool is yet another step towards enhancing both academic learning and clinical expertise in the field of dentistry.

July - September 2024

National Oral hygiene week celebrations 1-7 August 2024

National Oral Hygiene Day is celebrated every year on 1st August 2024 to commemorate the Birth Anniversary of the founder of INDIAN SOCIETY OF PERIODONTOLOGY (ISP), Dr. G.B. Shankwalker, who was born on this date.

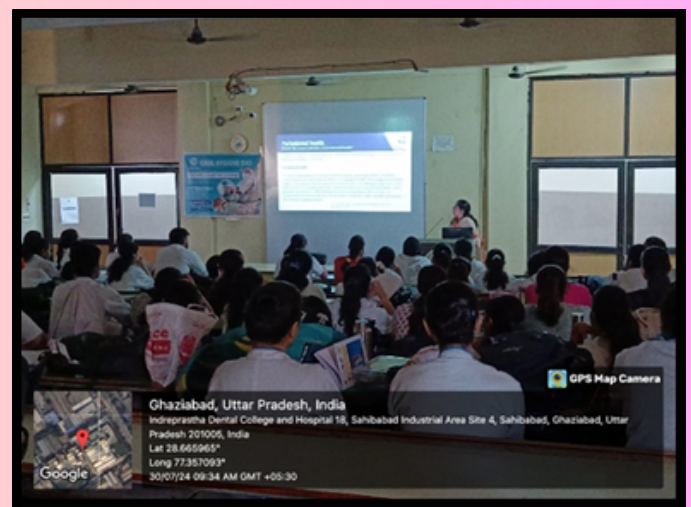
Inderprastha Dental college and Hospital celebrated National Oral Hygiene week in collaboration with Indian society of Periodontology on 1-7 August 2024. Multiple events were organised during the week.



Events Organised

- 27th & 30th August 2024 - Lecture And Quiz For Students And Post Graduates
- 1st To 7th August 2024 - Out Reach Activity
- 1st To 3rd August 2024 - Reels Making Competition (Topic: Healthy Gums Healthy Smile)
- 7th August 2024 - Nukkad Natak
- 7th August 2024 - Poster Competition (Topic: Importance Of Oral Hygiene In Systemic Health)
- 1st To 7th August 2024 - Free Dental Check Up

Lectures were delivered on 27th July and 30th July 2024 by Dr. Preeti Upadhyay (Prof. & HOD) and Dr. Saurabh Kumar (Sr. Lecturer) on oral hygiene awareness.



July- September 2024

Oral hygiene week celebrations

1-7 August 2024

Out Reach Activity



Oral Hygiene Instruction and Sample Distribution



POSTER COMPETITION



REELS MAKING PRIZE DISTRIBUTION



REELS MAKING PRIZE DISTRIBUTION



ORAL HYGIENE DAY QUIZ



Waste Management Workshop



Galaxy S24



Inderprastha Dental College and Hospital organized a comprehensive Waste Management Drive on 30th August 2024. The initiative featured educational plays to raise awareness among medical professionals about sustainable waste practices, the inauguration of a compost plant to promote eco-friendly disposal, and an educational lecture on innovative waste management strategies.

The event, covered by the media, showcased the college's commitment to sustainability and set a strong example for responsible waste management in healthcare.



इंद्रप्रस्थ डेंटल कॉलेज एंड हॉस्पिटल में 'कूड़ा प्रबंधन' पर कार्यशाला संपन्न

कूड़ा प्रबंधन क्षेत्र में समाज की भागीदारी को बढ़ाती आईपीसीए की विशेष पहल: सॉर्ट

नई दिल्ली/गान्धियाबाद। पर्यावरण संरक्षण को ध्यान में रखते हुए दो दशक पहले शुरू हुई समाज सेवा संगठन आईपीसीए (आईपीसीए) के पवन ने इंद्रप्रस्थ डेंटल कॉलेज में कूड़ा प्रबंधन के विषय पर कार्यशाला आयोजित की। गौरतलब है कि एसओआरटी (सॉर्ट) परियोजना के अंतर्गत यह वर्ष दिल्ली एनसीआर के 90 सोसाइटी सहित 30 संस्थानों में आईपीसीए ने सोसाइटी और संस्थानों से निकलने वाले कूड़े को उसके स्रोत पर ही अलग-अलग कर न केवल लैडफिल में जाने से रोक बल्कि कूड़े से डेढ़ लाख किलोग्राम जैविक खाद का उत्पादन कर कूड़ा प्रबंधन में समाज की भागीदारी के महत्व को रेखांकित किया।

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July- September 2024

Personality development program for female BDS 4th yr students and Interns



On August 8th 2024, Inderprastha Dental College and Hospital organized a Personality Development Program exclusively for female BDS 4th-year students and interns. This program was designed to empower future dental professionals by enhancing their communication skills, building self-confidence, and refining their professional presence.

Participants engaged in dynamic workshops and interactive sessions that prepared them for the challenges and opportunities in dentistry. From mastering effective communication to developing a confident and poised demeanor, students are now better equipped to lead with excellence.

At Inderprastha Dental College, we are committed to the holistic development of our students, ensuring they are ready to make a positive impact in the field of dentistry. We're proud of the growth shown by our students and look forward to their continued success!

July - September 2024

ANTI RAGGING WEEK CELEBRATION

Inderprastha Dental College and Hospital observed Anti-Ragging Week from August 12th to 18th, 2024, under the leadership of Dr. Rahul Paul, Principal. The initiative aimed to raise awareness about the importance of creating a safe and respectful environment for all students.

Throughout the week, various engaging activities were organized, starting with an informative lecture on the negative impact of ragging and the legal consequences associated with it. A logo design competition encouraged creativity, with students visually representing the institution's stance against ragging. Educational videos from the UGC were also presented to further emphasize the seriousness of the issue.

The highlight of the week was a powerful skit performed by BDS students, which illustrated the emotional and psychological toll ragging can take on victims.

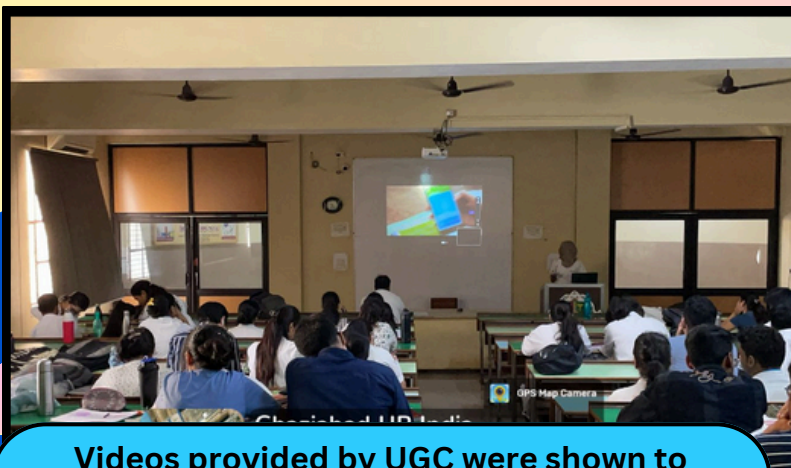
These events not only promoted awareness but also reaffirmed the college's firm commitment to a zero-tolerance policy on ragging, ensuring a safe and supportive environment for all students to learn and grow.



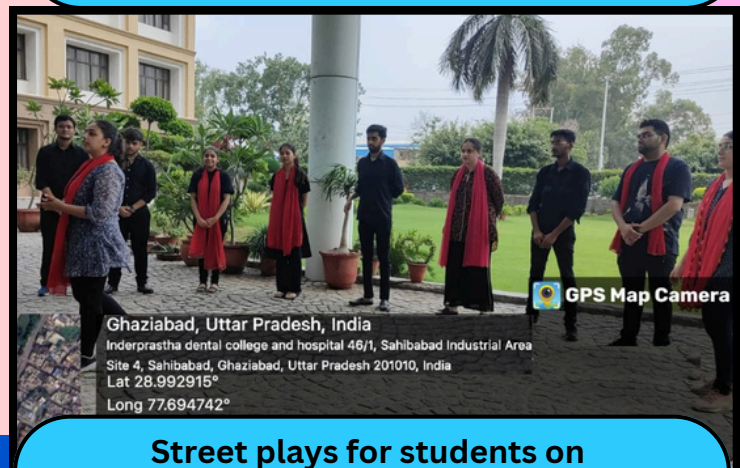
Introductory lecture was presented by Dr. Pragya Tripathi



Students participated in Logo Designing Competition – Anti Ragging



Videos provided by UGC were shown to students to create awareness against Ragging



Street plays for students on Anti Ragging

TEACHER'S DAY CELEBRATION

5 September 2024



On 5th September 2024, students of Inderprastha Dental College and Hospital celebrated Teachers' Day with great enthusiasm and heartfelt tributes for their teachers. The event honored the incredible contributions of the educators who shape the future of the dental profession.



A special tribute was paid to Dr. Rahul Paul, Principal of the institution, whose visionary leadership has greatly influenced the institution's growth. The celebration also acknowledged the Heads of Departments and all faculty members.

Their dedication and commitment to academic excellence and student mentorship have created a strong foundation for nurturing skilled and compassionate dentists. The entire faculty's passion for teaching was celebrated as a driving force behind the institution's success.



BDS ORIENTATION PROGRAM

On 12th September 2024, Inderprastha Dental College and Hospital warmly welcomed the new BDS batch with an inspiring Orientation Program. The event marked the beginning of an exciting academic journey for the aspiring dental professionals. Led by the Principal, Dr. Rahul Paul, the program introduced the students to the institution's values, academic excellence, and commitment to comprehensive dental education. The new batch was encouraged to embrace the opportunities ahead and strive for excellence in both academics and clinical practice, setting the tone for a bright future in dentistry.



Software Feeding of our New BDS students



Personalised Guidance for each student by Senior Faculty



The New members of the **IPDC Family** completed the onboarding process followed by lavish lunch

July - September 2024

Student Awards

Congratulations!

We are proud to acknowledge the spirited participation of our undergraduate students at Perio-Connect, Perio UG Convention organized by Indian Society of Periodontology at Sharda University, School of Dental Sciences Greater Noida on 6th July 2024.

We appreciate the perseverance and passion that our students have shown in their pursuits. The winners for the Scientific Paper Presentation and Poster Presentation Categories are as follows:

Nidhi Mishra and Saema Khan (BDS Final Year) bagged the First Position in Poster Presentation along with a Second Position for Paper Presentation.



SHARDA UNIVERSITY, SCHOOL OF DENTAL SCIENCES
Department of Periodontology
Presents

PERIO-CONNECT
PERIO UG CONVENTION 2024
for Final year BDS and Interns

Nidhi Mishra and Saema Khan
1st and 2nd Position
for
Poster and Paper Presentation

July - September 2024

Student Awards



We are thrilled to celebrate the outstanding achievements of our students at 14th ISPRP National Conference 2024, held at ITS Dental College, Ghaziabad from 12-14th July 2024. Our students shone brightly, earning recognition and accolades for their performances.

We are delighted to announce the exceptional achievements of our students who have been recognized for their outstanding presentation skills in Scientific paper and e-poster presentation at 14th ISPRP National Conference 2024:

- Dr. Tushar Tyagi (MDS)- Department of Conservative Dentistry and Endodontics, Secured the First Position in the Scientific Paper Presentation.
- Dr. Anshika Sharma (MDS)- Department of Periodontology, bagged the Second Prize in Scientific Paper Presentation.



Dr. Anshika Sharma
2nd Prize
Paper Presentation



Dr. Tushar Tyagi
1st Prize
Paper Presentation



July - September 2024

Student Awards

Congratulations!

We are delighted to announce the winners of the Badminton Championship 2024, organised by IDA North Delhi. The competition was intense, with participants showcasing their exceptional skills, sportsmanship, and dedication.

Congratulations to the following champions:

- Dr. Debargya and Dr. Ritika (MDS) for winning the Bronze Trophy in the mixed doubles category at the championship.
- Nayan and Aditya (BDS) for clinching the Bronze Trophy in the Boys Doubles Category.

Each of you has demonstrated incredible effort and passion, and we applaud your outstanding achievements!



Nayan & Aditya (BDS)
Bronze Trophy
Boys Doubles Category



Dr. Debargya & Dr. Ritika (MDS)
Bronze Trophy
Mixed Doubles Category



July - September 2024

Faculty Award



We are happy to share that Dr. Dakshita Joy Sinha, Professor and Head, Department of Conservative Dentistry and Endodontics was awarded with the International Best Researcher Award for the Research and Excellence for her research topic: Effect of remineralizing agent on laser and non laser bleached enamel surfaces subjected to erosion: An in vitro study, at the ISSN International Research Awards and Congress 2024.

This award is a testament to the dedication, innovation, and passion that our faculty bring to their roles. Your dedication and excellence serve as a beacon of inspiration for both your colleagues and students. Your work continues to elevate the standards of our institution and enriches the educational experience for all.



Dr. Dakshita Joy Sinha, Professor & Head of the Department of Conservative Dentistry and Endodontics at Inderprastha Dental College, has been honored with the role of an official speaker for Mani Dental Company. This prestigious appointment highlights her expertise in the field of endodontics and her commitment to advancing dental education. As a speaker, she will be sharing her knowledge with dental practitioners globally.

ICMR Grant Approval

ICMR GRANT approval for our BDS student

Topic:

Comparative evaluation of apical extrusion of debris using different files system: an In-vitro Study

BDS Student



Manpreet Kaur
BDS Student

Faculty Guides



Dr Nikhil Puri
Professor & Head
Department of
Conservative Dentistry
and Endodontics-UG



Dr Nidhi Sharma
Reader
Department of
Conservative Dentistry
and Endodontics

ICMR Grant Approval

ICMR GRANT approval for our BDS student

Topic

COMPARATIVE EVALUATION OF EFFECT OF DIODE
LASER USING SODIUM FLUORIDE GEL AND LASER
ALONE IN REDUCTION OF DENTINAL
HYPERSENSITIVITY

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Topic

EVALUATION OF EFFICACY OF AQUA TITAN PATCH VS
TRANSDERMAL DICLOFENAC PATCH AFTER LOWER
THIRD MOLAR SURGERY: A PROSPECTIVE STUDY

Faculty Guide



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Arpan Srivastav
BDS Student

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Topic

Evaluation of Antimicrobial property of newer dentin bonding agents on Streptococcus mutans: An In-vitro study

Faculty Guide



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Topic

Efficacy of denture cleaners and probiotic mouthwash on candida albicans in complete denture and removable partial denture

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Topic

Impact of various access cavity Design on fracture resistance of mandibular molars : an in-vitro study

Faculty Guide



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**Amisha Gautam
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Topic

Comparative Evaluation Of Microleakage And Internal Voids in Class II Restorations using Open Sandwich Technique with Resin Modified GIC, Activa-Bioactive And SDR as an Intermediate Material: An In-Vitro Study

Faculty Guide



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Facial improvement using Modified Twin-Block

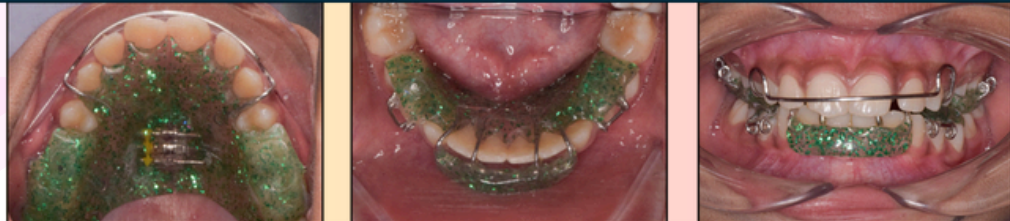
Pre-Treatment Intra-oral Photographs



Pre-treatment



During Twin-Block Therapy



Post-treatment



After Twin-Block Therapy



Background: The Twin-block originally developed by William J. Clark. The appliance consists of maxillary and mandibular acrylic plates with bite blocks that posture the mandible forward on closure, and it is indicated for the correction of Class II malocclusions characterized in part by mandibular skeletal retrusion.

Treatment Plan: This case reports A female Patient aged 12 years, reported to the department of Orthodontics and dentofacial orthopaedics. With a chief complain of forwardly place upper teeth and a habit of lower lip sucking. On diagnosing the patient, it was found that the mandible was in retrognathic relation to orthognathic maxilla creating Class II skeletal pattern subjected to lower lip-sucking habit and dental class II malocclusion. Also, VTO came out to be positive on inspection suggesting validity of using twin block therapy.

Treatment Progression: the twin block was modified with a lower lip bumper addressing the lip sucking habit with advancement of the retruded mandible in the forward position improving the facial aesthetics that continued for about 1 year to correct the skeletal discrepancy which is being followed by MBTTM 0.022" mechanotherapy to achieve good function occlusion with structural stability and pleasant facial profile.

Conclusion: By the use of myofunctional therapy we can correct the skeletal discrepancies and improve the facial profile effectively if growth allows. Twin-block being the most comfortable to patient allowing them to function normally including chewing and speaking.

Special Case

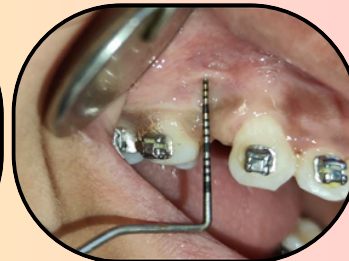
Department of Periodontology

Flapless Periodontal Accelerated Osteogenic Orthodontics (Paoo) Technique With Piezosurgery

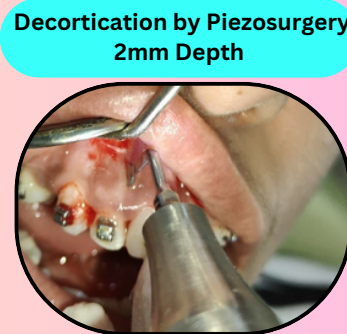
Pre-Operative Pictures



Determination of Incision Area



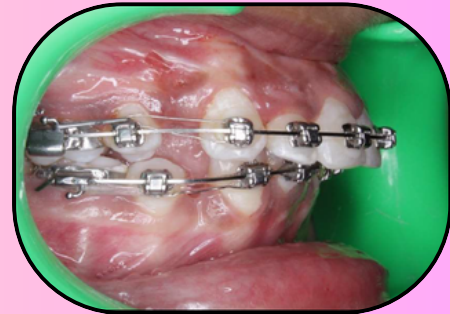
Incision By 15 No. Blade



Decortication by Piezosurgery
2mm Depth



2 Weeks Post-operative
Picture



Background: Patient reported to the department of periodontology with the chief complaint of Patient complains of malaligned teeth in upper and lower jaw showing Class I molar relation and Class I canine relation with proclined upper and lower incisors and anterior crowding in maxilla and mandible.

Treatment plan: Professional Phase I therapy was done followed by initial orthodontic leveling and alignment and PAOO technique surgery for En-masse retraction w.r.t. 11,12,13,14 was done using Piezosurgery.

Phase I therapy: The initial phase of treatment involved oral prophylaxis to remove calculus and plaque deposits to reduce microbial load for better post-operative healing and reduction in inflammation.

Procedure: The procedure was performed under local anesthesia. This procedure is theoretically based on the bone healing pattern known as regional acceleratory phenomenon (RAP) without raising full thickness flap by vertical incision for rapid acceleration .

Post-operative evaluation: After 2 weeks patient's outcome was assessed. The evaluation revealed increase in alveolar bone width, shorter treatment time, increased post treatment stability

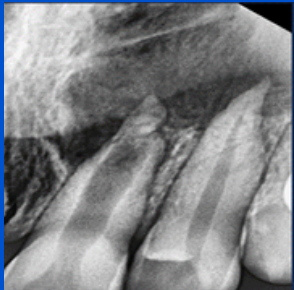
PLATELET RICH FIBRIN AS AN AUTOLOGOUS BIOMATERIAL IN ENDODONTIC SURGERY: A CASE REPORT

Background: A 17 years old female patient reported to the Department of Conservative Dentistry and Endodontics, with a chief complaint of pain on biting in upper left front teeth region since 1 month, had history of trauma w.r.t upper anteriors 5-6 years back. On Clinical Examination Discoloration and a small gingival swelling with patent sinus was present w.r.t 21. Tenderness on percussion were positive w.r.t 21 and 22. On Radiographic examination a large periapical radiolucency was seen w.r.t 21 and 22. The root of 21 showed external root resorption. After doing pulp vitality test it was observed that both 21 and 22 were non-vital.

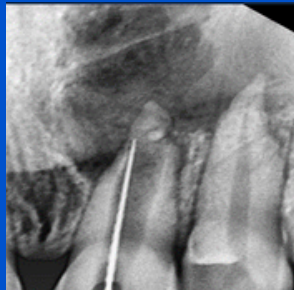
Treatment plan: Root canal treatment wrt 21 & 22.

Treatment done: The root canal treatment was initiated and calcium hydroxide dressing was given for 5 days followed by metapex dressing for 15 days, but a dry canal could not be achieved. Therefore, endodontic surgery (Apicectomy along with PRF) for the management of apical portion of root was carried out.

Conclusion: A combination of MTA and PRF can be successfully used in endodontic surgery cases.



PREOPERATIVE
IOPA w.r.t 21 & 22



IOPA SHOWING
OBSTRUCTION AT THE APEX



FLAP REFLECTION



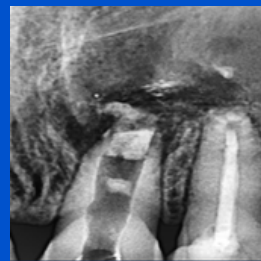
APIPECTOMY OF 21



Apicectomy of 22



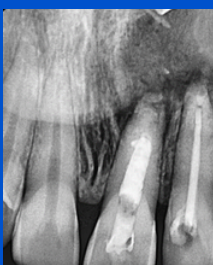
Retrograde cavity preparation
using Ultrasonic tips



MTA placement



PRF membrane placement



1 MONTH FOLLOW
UP



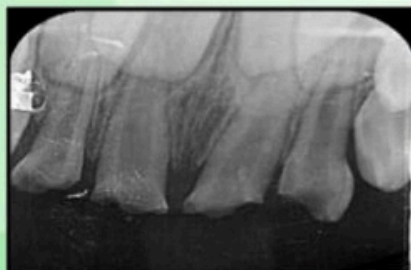
Post op after suturing

Smile Makeover in a case of Early Childhood Caries with preformed Zirconia Crowns

Department of Pediatric and Preventive Dentistry



Pre-operative clinical picture



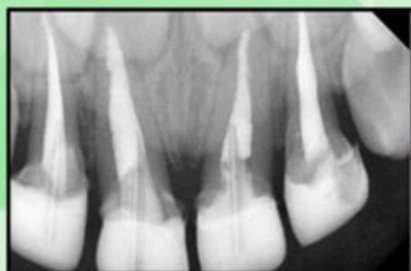
Pre-operative Radiograph



3 Months follow up clinical picture



Post-operative clinical picture



Post-operative Radiograph



6 Months follow up clinical picture

Background: A 4-year-old patient presented with severe Early Childhood Caries (ECC) involving the maxillary primary incisors (teeth 51, 52, 61, 62). The child exhibited compromised aesthetics and functional issues, affecting both oral health and social interaction. Early childhood caries in anterior teeth can significantly impact the child's self-esteem and overall quality of life. The decision was made to restore function and aesthetics using preformed Zirconia crowns after root canal treatment.

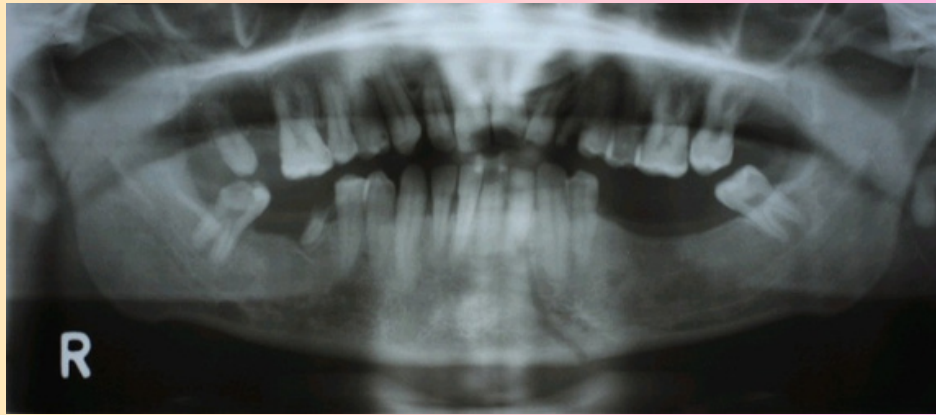
Treatment Plan: Pulpectomy in teeth 51, 52, 61, and 62 followed by placement of fiber posts in all four teeth to improve retention. Full coverage restoration with preformed Zirconia crowns to restore both aesthetics and function was done after that in relation to 51, 52, 61, 62.

Treatment Done: After administering local anesthesia, pulpectomy was performed in teeth 51, 52, 61, and 62. Following complete biomechanical preparation and obturation with a resorbable material, fiber posts were placed in the canals of each tooth to reinforce structural stability. Preformed Zirconia crowns were selected for their excellent aesthetic properties and durability. The crowns were cemented with resin cement, ensuring proper adaptation and marginal fit.

Conclusion: The use of preformed Zirconia crowns in combination with fiber posts provided an effective, long-lasting aesthetic solution for the patient with ECC. The treatment restored function and significantly improved the child's smile and confidence.

LEFT PARASYMPHYSIS FRACTURE OF THE MANDIBLE

Department of Oral Surgery



Background: A male patient presented with complaints of pain for the past two days following a traumatic incident. Upon examination, significant facial swelling and tenderness were noted, leading to further investigation.

Diagnosis:

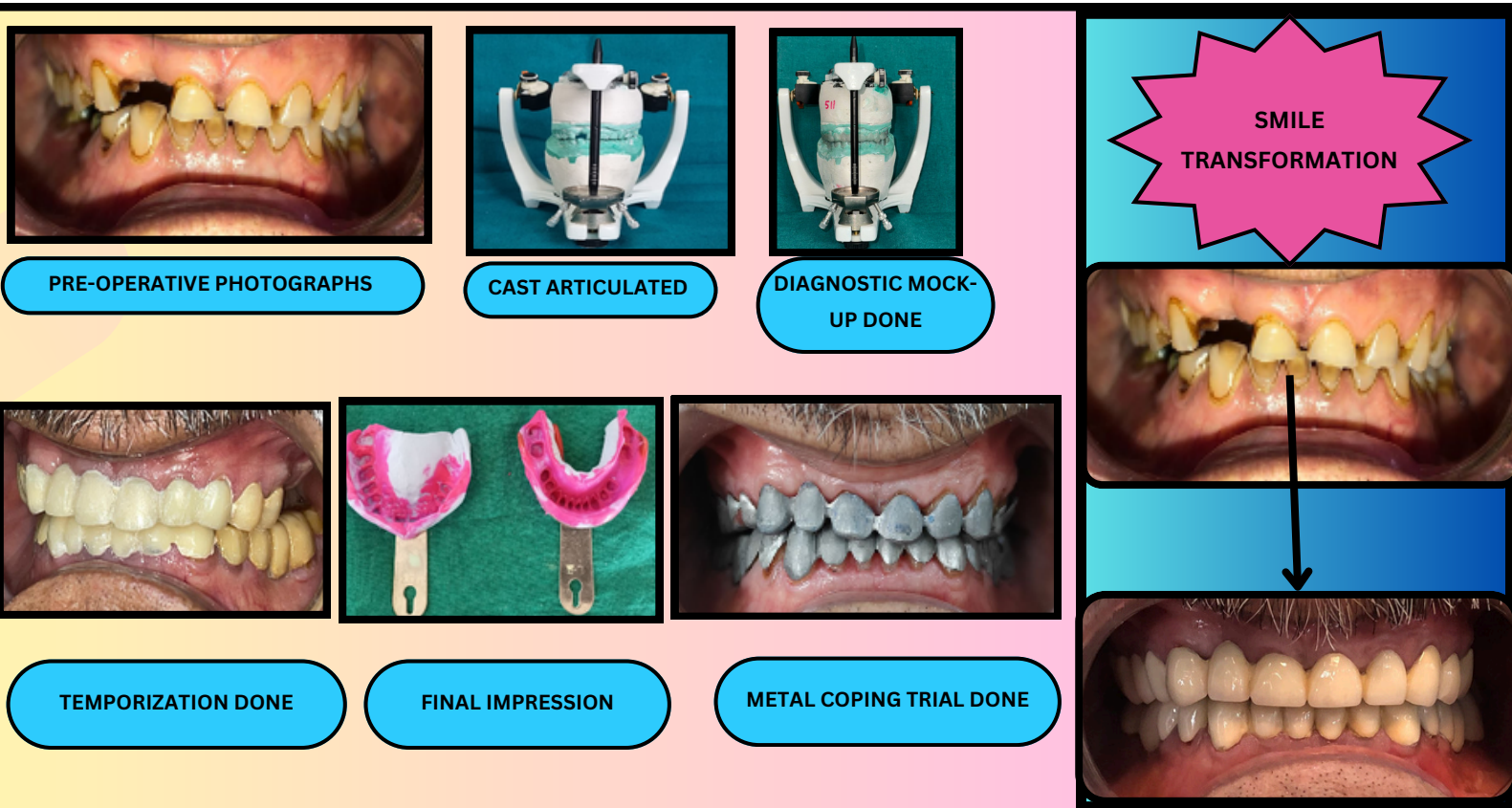
The clinical evaluation and imaging studies confirmed a diagnosis of a left parasymphysis fracture of the mandible.

Treatment Plan: The clinical evaluation and imaging studies confirmed a diagnosis of a left parasymphysis fracture of the mandible.

Treatment Done: The surgical procedure was successfully executed, with careful exposure of the fracture site. The bone fragments were accurately aligned and secured using appropriate fixation devices to stabilize the fracture and promote healing.

Conclusion: The patient responded well to the surgical intervention, with a significant reduction in pain and improved function following the procedure. This case highlights the importance of timely and effective management of traumatic mandibular fractures, emphasizing the role of open reduction and internal fixation in achieving optimal outcomes in oral surgery.

FULL MOUTH REHABILITATION

Department of Prosthodontics and Crowns & Bridges

Background: Full mouth rehabilitation is a complex and challenging aspect of prosthodontics that involves the restoration and optimization of the entire dentition in patients with extensive dental deterioration. This case report presents the comprehensive treatment of a 62-year-old patient with severely compromised dentition due to a combination of advanced dental caries, periodontal disease, and occlusal wear. The patient presented with significant functional and esthetic concerns, including difficulty in mastication, speech impairment, and dissatisfaction with their appearance.

Treatment Plan: The treatment plan began with a comprehensive evaluation of the patient's oral health, including medical history and diagnostic imaging. The patient, presenting multiple missing and compromised teeth, opted for PFM crowns for restoration. Initial steps involved necessary tooth extractions, followed by tooth preparations and impressions for crown fabrication. Temporary restorations were placed for comfort, and regular follow-ups were scheduled to monitor healing and ensure the successful integration of the final crowns.

Treatment Done: For full mouth rehabilitation, wax up was done on 3 mm raised bite followed by tooth preparation of maxillary and mandibular arch which were followed by temporization. The patient was recalled after 7 days and final impression were taken. Metal coping trial was done which were followed by final cementation.

Conclusion: The rehabilitation with PFM crowns significantly enhanced the patient's oral function and aesthetics, restoring bite, improving chewing efficiency, and achieving a natural-looking smile. This case highlights the effectiveness of PFM crowns in meeting both functional and aesthetic goals. Ongoing maintenance and regular check-ups will be vital for the longevity of the crowns and the overall dental health of the patient, with further research suggested to assess long-term outcomes in similar cases.



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AGE ESTIMATION BY ASSESSMENT OF DENTIN TRANSLUCENCY

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Abstract

Introduction: There have been a lot of methods of age estimation in forensic odontology. The main advantage of dental evidence is that it is frequently preserved after death and not affected by adverse conditions. Forensic odontology is defined by the Fédération Dentaire Internationale (FDI) as "that branch of dentistry which, in the interest of justice, deals with the proper handling and examination of dental evidence, and with the proper evaluation and presentation of dental findings." It primarily deals with identification, based on recognition of unique features present in one's dental structures. Forensic dentistry plays a major role in identification in man-made or natural disasters- events which result in multiple fatalities that may not be identifiable through conventional methods such as fingerprints. It mainly relies on sound knowledge of the teeth and jaws possessed by dentists and incorporate dental anatomy, histology, radiography, pathology, dental materials and developmental anomalies. Dental hard tissues gain importance in identification based on the condition of deceased. Teeth are one of the strongest structures in the body, and are usually resistant to postmortem decomposition. Moreover, most materials used by the dentist for restoring teeth are also resistant to postmortem changes. Therefore, the use of dental evidence is the method of choice in establishing identity of badly burned, traumatized and decomposed remains. Radicular dentin translucency is considered as one of the better methods of age estimation. It can be measured using a digital scanner. **Aim:** The aim of this study is to estimate the age of teeth with respect to radicular dentin translucency. **Materials and Methods:** Twenty samples of freshly extracted single-rooted permanent teeth, with their gender and age known, were collected. The transparency level of the radicular dentin increases during third decade of life. Teeth were sectioned longitudinally using micromotor and Arkansas stone. Distance between the apical and coronal extends of dentin translucency on both sides was measured. Measurements obtained were then compared with the chronological age of the corresponding tooth. **Result:** A positive correlation was observed between the chronological age and length of dentin translucency. **Conclusion:** Dentin translucency can be considered as a reliable parameter for age estimation.

Introduction

Forensic odontology is the branch of forensic science that deals with the assessment of dental tissues as they don't change for a long period of time¹. Teeth survive post-mortem destruction and play a great role in comparative and reconstructive identification². Age estimation using the dentition is an important step in human dentition³. Proper identification in forensic odontology is essential for ethical and official records and criminal investigations too. It enables to construct a mortality profile of the deceased. In cases where the viewing of the deceased is not possible, forensic odontology comes in the light. In such cases, dental hard tissues gain importance in identifying the deceased³. Age estimation by dentition is an important speciality of forensic odontology. It is one of the few measures of physiological development. After reaching maturity, teeth undergo various changes which make age estimation possible in adults⁴. The hard tissues present in teeth, enamel and dentin, give teeth

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Original Article

JINPAFO Vol. 12, Issue 2, Jul - Dec 2023



Cementum Annulations as a Tool for Age Estimation In Forensic Odontology

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ABSTRACT-

Introduction: Estimating age at death is a key element in the process of human identification of remains of the skeleton. It is a vital process of forensic aspect of dentistry. Cementum annulation technique is one of the key techniques to estimate the age of a person after death. Recent research shows that this technique of tooth cementum annulations (TCA) may be used more reliably than any other morphological or histological traits of adult skeleton for age estimation.

Aim: The purpose of this study is to estimate the age of the subject using tooth cementum annulation method by incremental lines present in the cementum.

Materials and Methods: The study consisted of the sample of twenty teeth that had been extracted from the patients ranging in the age of 20-70 years. Longitudinal ground sections of each tooth were cut and was examined under the microscope. The images were then zoomed / magnified on the computer and the number of dark lines were counted. The mid root region was selected for counting the annulations. The counted cementum lines for each tooth were then added to the eruption age of the tooth to estimate the age of the patient.

Results: There was found a strong positive correlation between the estimated age and the calculated age of the person when examined under the microscope. This proves that cementum annulations can help give an accurate estimation of the persons age irrespective of the sex, age, periodontal disease etc.

Conclusion: With this study we were able to conclude that counting the incremental lines can improve the accuracy of age estimation, in turn helping the process of forensic profiling of the subject.

Introduction

Identification of a person living or dead is of paramount importance in routine forensic odontology. The determination of age plays an important role in forensic medicine not only in identification of bodies but also in connection with various crimes.¹ According to Keiser-Neilson in 1970, forensic odontology is a branch of medicine that deals with the proper handling and examination of dental evidence with proper evaluation and presentation, in the interest of justice.²

In the past numerous researchers have proposed various age estimation techniques using different skeletal and dental tissues. The accuracy of these age estimation techniques is much greater in children and adolescents as compared to adults due to the presence of a multitude of developing teeth.³

Age estimation in adults has been studied and teeth are very important tools for the identification of the age of an

individual as they differ from bones in their biological properties and function and are well preserved.²

The cementum is a connective tissue that surrounds the tooth root and slowly gets deposited throughout life. Cementum remains stable throughout an individual's life as the racemization of aspartic acid in cementum continues constantly.⁴ The age of a person can be assessed based on

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Department of Conservative Dentistry and Endodontics

Latest research Publication in Journal of Dentistry and Dental Practices



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ISSN: 2689-5994



Academic Strive
Researcher's perception is our reality

Case Report

Volume 6 Issue 2

Dealing with Endodontist Fear: Retrieval of Separated Instrument. A case report

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Abstract

When an endodontic instrument fractures during root canal treatment, this immediately hinders the clinician from thoroughly cleaning and shaping the canal system and thus compromises the outcome of the treatment. The prognosis of the case is dependent on the stage of canal instrumentation at the time the instrument separates. The present case report shows the case of the separated instrument at the coronal end. Since the coronal end is blocked and further debridement of the canal is not possible, it becomes necessary to remove the separated instrument so that the canal space is well-debrided and probably free from infection. This case report highlights the removal of a separated instrument from the canal using a technique known as the braiding technique.

Keywords: Braiding Technique; Instrument Separation; Removal of Separated Instrument

Introduction

The introduction of NiTi alloy to the endodontic world by Wallia in 1988 revolutionized the way we shape the canal system; however, the improper use of NiTi rotary instruments has resulted in procedural mishaps [1]. There are various factors associated with instrument separation, like operator experience, rotational speed, canal curvature, instrument design technique, torque, manufacturing process, and the absence of a glide path [2]. The separation rates of nickel-titanium rotary instruments were reported to range between 1.3% and 10%, whereas the separation rates of stainless-steel instruments were reported to range between 0.25% and 6% [3]. The major reason for the higher fracture rate of NiTi files, which has been stated to be superior to SS hand files due to their flexibility, torsional fracture, and corrosion resistance, is difficulty in recognizing the deformation of the

file [4].

The instruments are usually separated by two different mechanisms: torsional fatigue or bending fatigue.

- Torsional fatigue occurs when the instrument binds against the canal walls and is usually associated with excessive apical force applied during instrumentation.
- Bending fatigue is caused by continuous stress applied to an instrument that is already weakened by metal fatigue, and breakage occurs when it reaches its point of maximum flexure, where the stress is greatest, and this is often seen in curved canals [5].

The management of separated instruments involves the four treatment protocols that have been suggested by the literature for the management of fractured instruments in root canals:

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Latest research Publication in African Journal of Biological Sciences

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African Journal of Biological Sciences

Journal homepage: <http://www.afjbs.com>



Research Paper

Open Access

Promising treatment option for recession coverage

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ABSTRACT

Introduction: Surgical techniques, including pedicle and free soft-tissue grafting, are offered to treat the exposed root surface in the cosmetic zone of the dentition. A coronally advanced flap is an effective approach for root covering in managing gingival recessions on single or many teeth.

Aim: This case report highlighted the use of a Porcine collagen matrix with a coronally advanced flap technique for covering roots in the upper dentition aesthetic zone.

Materials and methods: Miller's class I gingival recessions on teeth 21, 22, 23, and 24 were identified. To improve the cosmetic covering, a Porcine collagen matrix was combined with a coronally advanced flap.

Results: The results show successful and stable recession coverage and are considered a promising therapeutic option for improving all clinical parameters.

Keywords: Gingival recession, Porcine Collagen Matrix, coronally advanced flap

INTRODUCTION

Gingival recession (GR) is the apical movement of the gingival edge relative to the cemento-enamel junction (CEJ), which is related to loss of attachment and exposure of the root surface to the oral environment¹. It causes dentinal hypersensitivity and an unattractive appearance, and, if left untreated, can develop into caries of root, abrasion or cervical wear, erosion, and increased dental plaque deposition¹. GR can be caused by a variety of causes, including improper tooth cleaning habits, abnormal frenal attachment pull, occlusion stress, thin gingival biotype, and bony plate thinning due to tooth malposition or prominence of the root¹. A variety of surgical methods can be used to treat gingival recessions; however, the

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African Journal of Biological Sciences

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Research Paper

Open Access

Comparative evaluation of Low-Level Laser Therapy with Intralesional Injections and Intralesional Injections alone for the treatment of Grade-II OSMF

Dr.Preeti Upadhyay¹, Dr.Manish Bhalla², Dr.AnshikaSharma³, Dr.Anupama Pradhan⁴, Dr. Arpita Goswami⁵, Dr. Saurabh Kumar⁶

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ABSTRACT:

INTRODUCTION: OSMF stiffens oral mucosa, reducing mouth opening and causing burning sensation, affecting oral health and overall quality of life. Therapies such as intralesional injections stimulate tissue growth. The use of lasers is known to alleviate OSMF symptoms. The objective of this study was to evaluate and compare the efficacy of Low-level laser therapy with intralesional injections and intralesional injection alone for the treatment of OSMF.

METHODOLOGY: 20 individuals with OSMF were randomly split into two groups of ten each to evaluate, changes in mouth opening, and pain response to treatment. One group received solely Intralesional Injections, while second group received both Intralesional Injections and Low-level laser therapy.

RESULT: Regarding mouth opening, the Intralesional Injection + LLLT group exhibited notably superior progress, compared to the Intralesional Injection alone group. However, no significant contrast was observed between the groups in terms of pain sensation.

CONCLUSION: The findings of this study affirm that combining LLLT with intralesional injections is a viable treatment approach for patients with OSMF.

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African Journal of Biological Sciences

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Research Paper

Open Access

Strategies of managing periodontal health in women: Current insights and future directions

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ABSTRACT

Women's periodontal health is significantly influenced by steroid sex hormones, which impact various organ systems. Estrogen primarily causes changes in blood vessels, while progesterone promotes the production of inflammatory mediators. Additionally, certain microorganisms in the human mouth produce enzymes necessary for steroid synthesis and metabolism. During puberty, ovulation, and pregnancy, increased levels of sex steroid hormones in women lead to heightened gingival inflammation, characterized by gingival enlargement, increased bleeding, crevicular fluid flow, and microbial shifts.

Effective clinical periodontal therapy requires an understanding of the clinician's role in the overall health and well-being of female patients. Dentists must recognize that treating localized infections can affect other bodily systems, as well as the foetus or breastfed infant. The unique periodontal and systemic issues faced by female patients can necessitate adjustments in conventional therapy, highlighting the crucial role dentists play in their care.

Keywords: Periodontitis, Hormones, Periodontal health, Pregnancy, Oral contraceptives, In Vitro Fertilization (IVF)

INTRODUCTION

Periodontal disease, encompassing conditions like gingivitis and periodontitis, significantly affects a large portion of the global population and exhibits unique manifestations in women due to hormonal influences throughout their lives.¹⁻³ Hormones, particularly estrogen, progesterone, and androgens, play pivotal roles in modulating the oral environment, impacting oral tissues' responses to microbial biofilms and local irritants.⁴⁻⁵ Women experience hormonal fluctuations across various life stages, such as puberty, menstrual cycles, pregnancy, and menopause. These fluctuations are known to affect the

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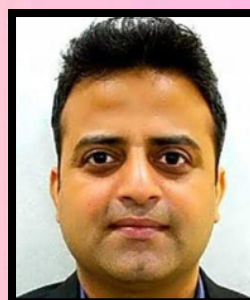
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A Pediatric Dentist Perspective on Artificial Intelligence Based Toothbrush's Clinical Efficacy, Parent Acceptance and Adherence as Compared with Conventional Toothbrush

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KEYWORDS

Clinical Efficacy, Indices, Oral Prophylaxis, Toothbrush

ABSTRACT:

Aim: This study aims to compare the effectiveness of an artificial intelligence (AI)-based toothbrush with a conventional toothbrush in children aged 5-10 years.

Objective: The objectives include evaluating the efficacy of both types of toothbrushes in removing dental plaque, comparing their clinical efficacy, and assessing the acceptance and adherence of the toothbrushes among children and their parents.

Materials and Method: A total of 34 patients were selected from the Department of Pediatric and Preventive Dentistry based on specific inclusion and exclusion criteria. After obtaining informed consent from the parents, the procedure began with oral prophylaxis. Disclosing agents containing erythrosine were applied, followed by the recording of the Silness and Loe 1964 Plaque Index, Silness and Loe 1963 Gingival Index, Oral Hygiene Index 1960, and Gingival Bleeding Index. The children were then divided into two groups: Group A (17 children) received an AI-based toothbrush, and Group B (17 children) received a conventional toothbrush. Both groups were provided with fluoridated toothpaste to maintain standardization. The indices were recorded on 7, 14, 28 days.

Result: Both the case and control groups showed significant results with significant reduction in plaque score having $p \leq 0.05$. However, when comparing the AI toothbrush to the conventional one, their effectiveness in removing plaque was found to be similar.

Conclusion: plaque scores were similar between the two groups but there were notable differences in other areas: the gingival index, oral hygiene index, and gingival bleeding index all showed significant differences.

Introduction

With an estimated 1.76 billion children with deciduous teeth worldwide, childhood caries continues to be a major health concern¹. Over the past 50 years, the world's consumption of sugars—the most important dietary element in the development of caries—has tripled and is predicted to continue rising². Dental plaque develops as

a result of children's frequent use of excess added sugars in the form of snacks, processed foods, and beverages with added sugar³. Dental plaque forms when a diverse group of microbes, encased in a mix of bacterial and salivary substances, attaches to the tooth surface. After cleaning, a protein layer quickly forms on the teeth, allowing bacteria to adhere and start building



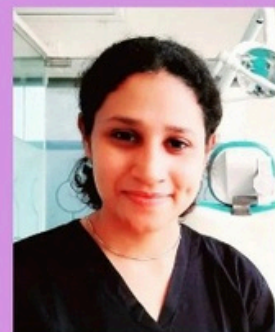
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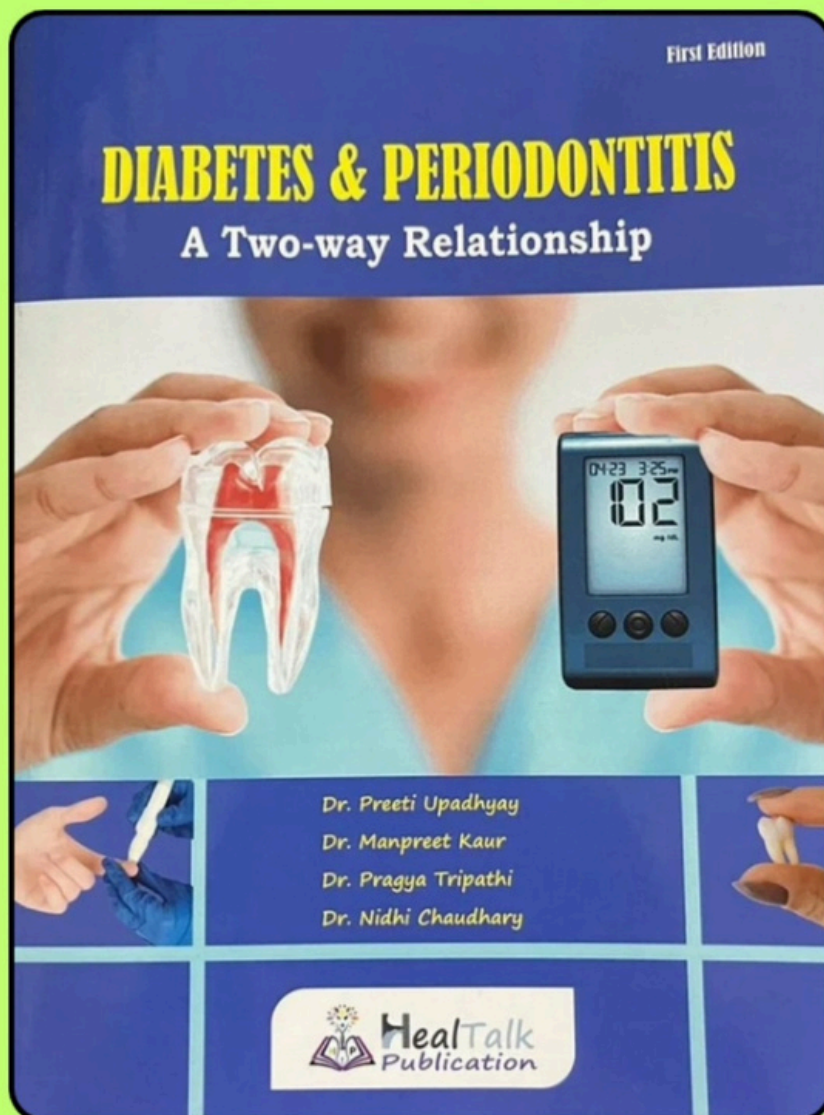
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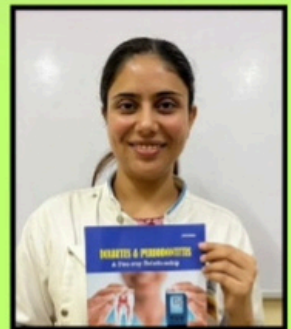
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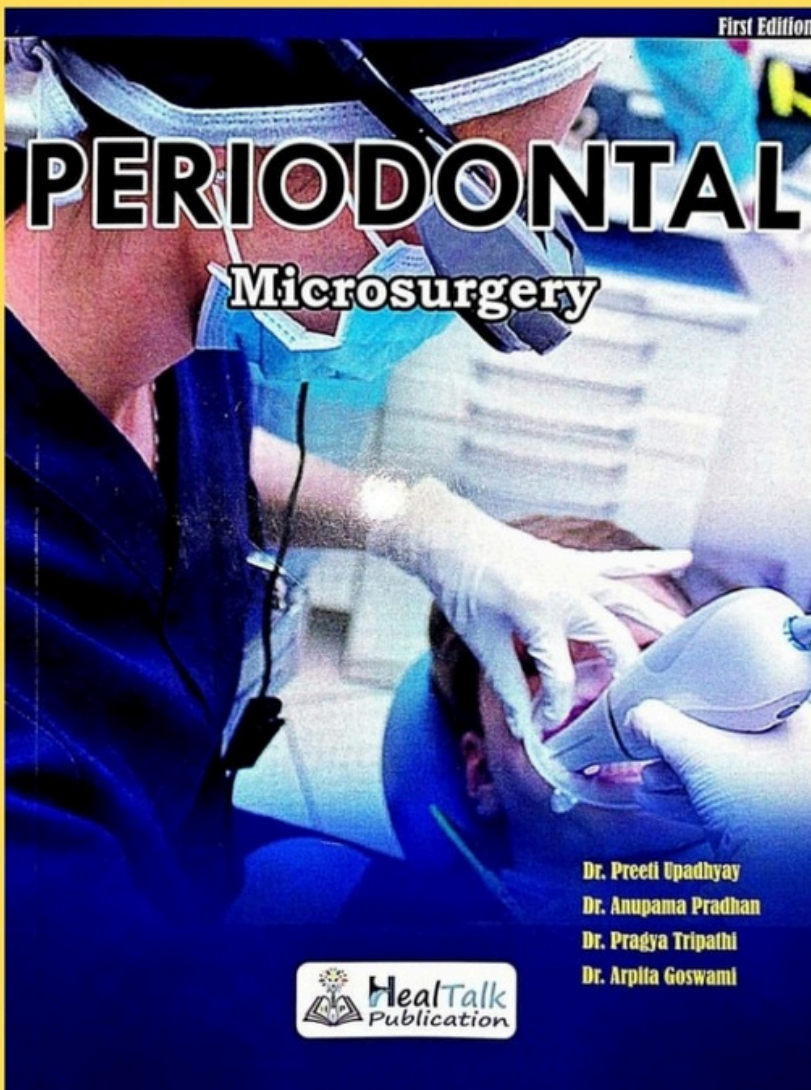
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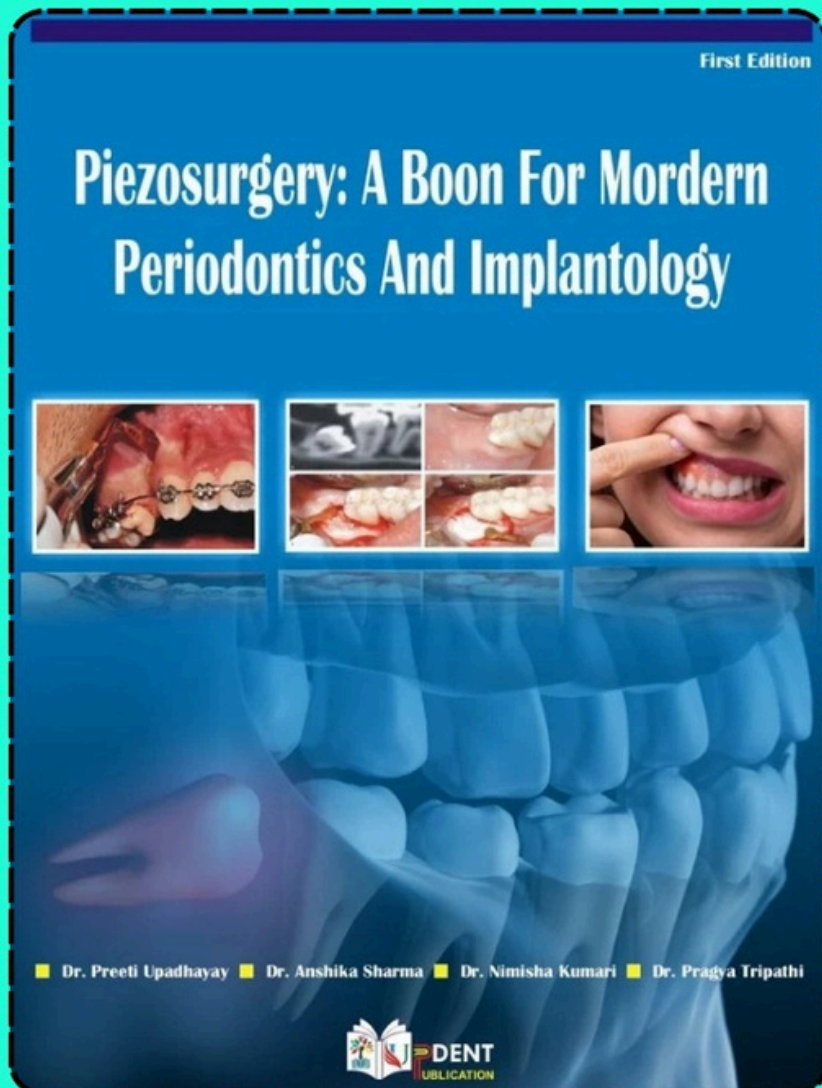
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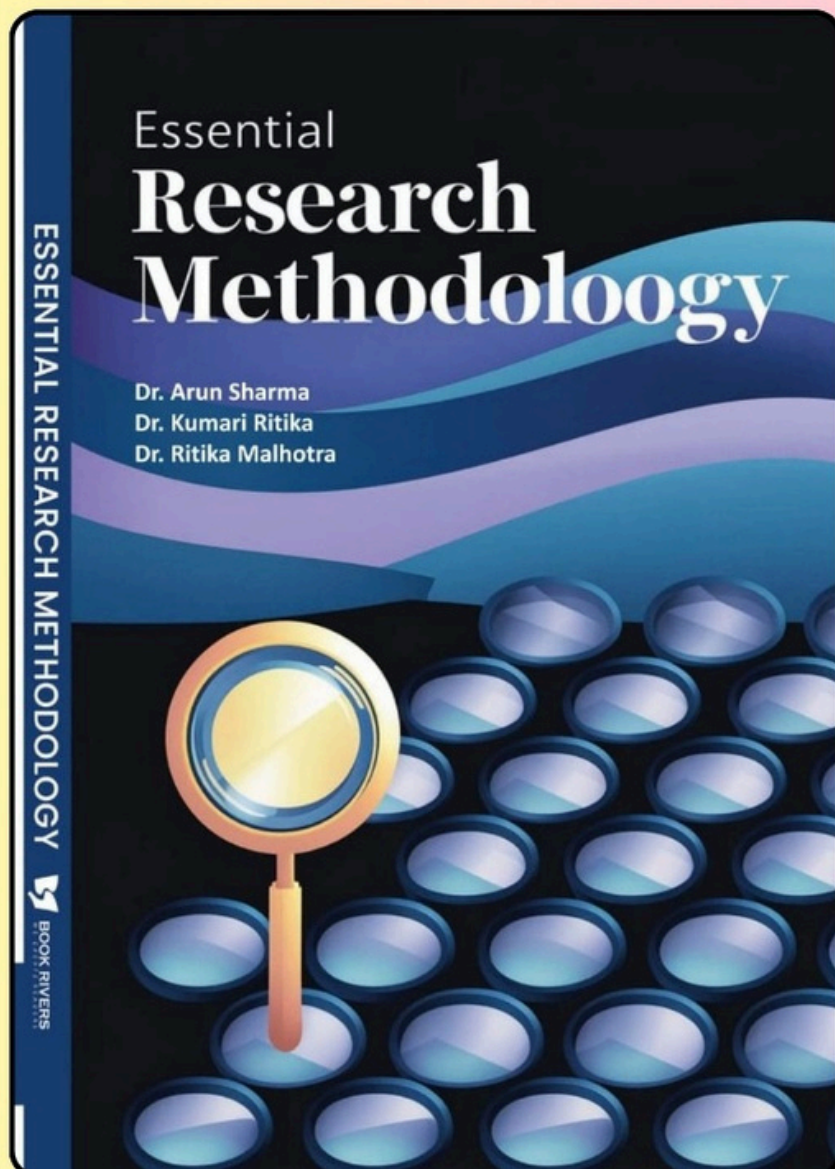
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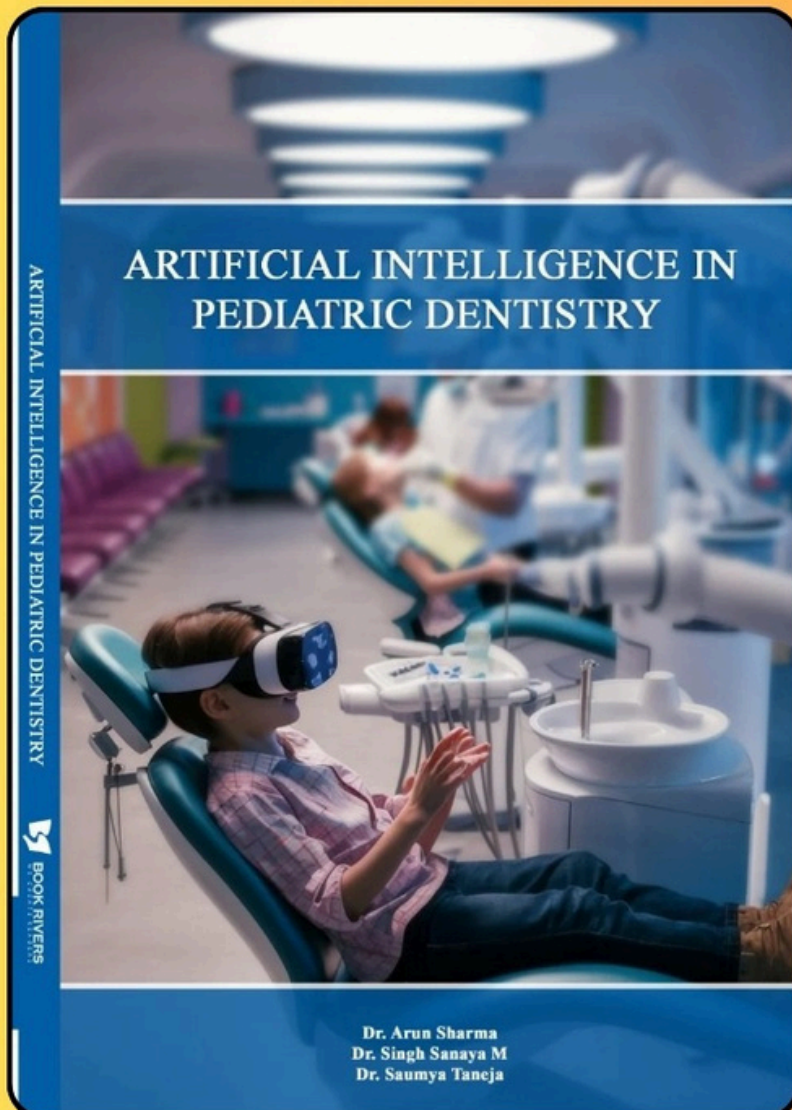
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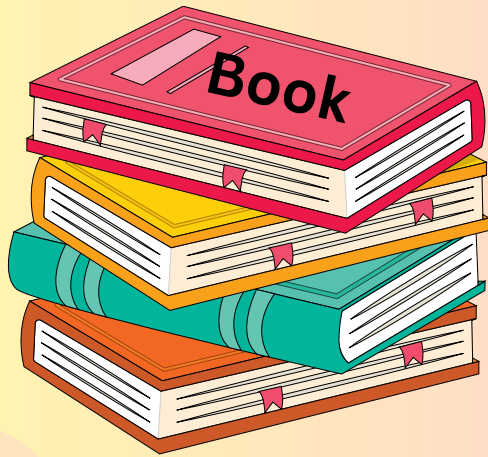


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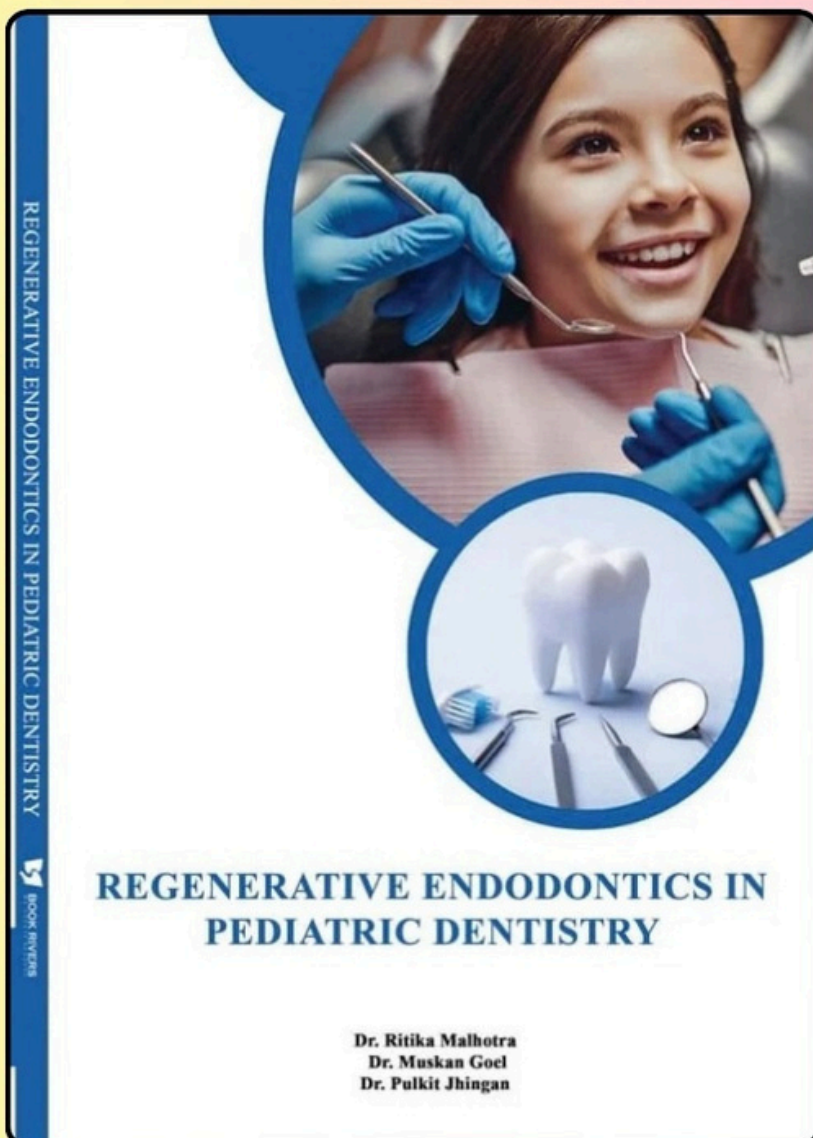
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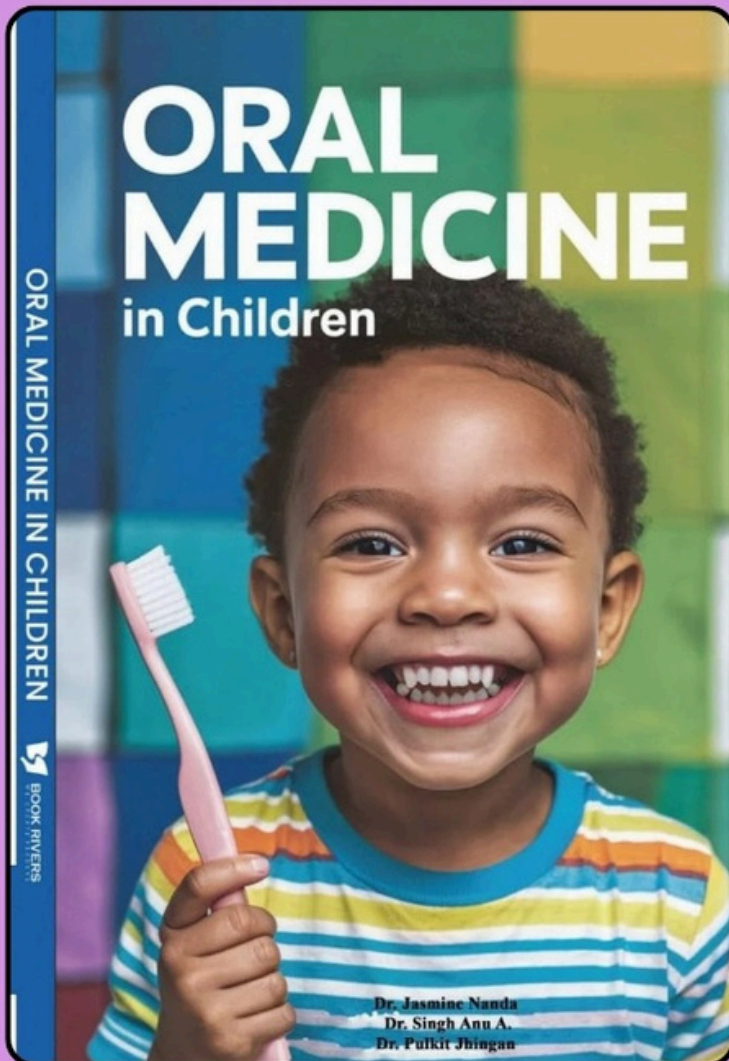
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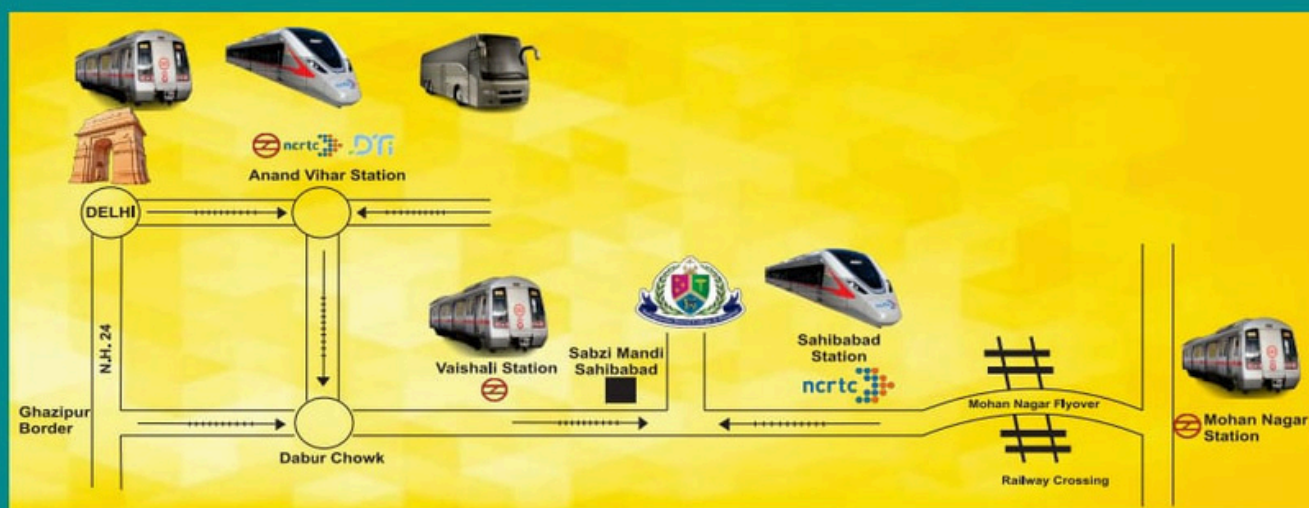
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