

*Wishes a  
Happy New Year  
to its Members...*

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## VIJAYAWADA CONFERENCE







# PINS & POSTS

## AN OFFICIAL NEWS LETTER OF IACDE



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September- December 2018 ( 12 Pages )

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### 33RD IACDE NATIONAL CONFERENCE - VIJAYAWADA

The 33rd National Conference held in Vijayawada was a grand success by all means. The untiring efforts of the entire organising team headed by Dr.Murali Mohan and Dr.Nagesh bola were well appreciated. The various pre conference courses were well attended. The conference was completely a revamped one and was a kind of its own. The conference was mainly focused for the delegates. The total registrations were almost 1200 with more delegates.

Scientific presentations consisted of Delegate and student presentations. Only the students who won in the zonal conferences were allowed to present at the National level competition. This concept was well received and the presentations had more quality. For the first time in the history there were three live demonstrations during the conference. A dental chair was on the stage and procedures were performed. This was a major attraction of the conference. There were almost twenty guest lecturers which were of international standards.

On the whole the scientific value of the conference was beyond description. The aim of our association is to enhance the scientific value of the educational effects and this conference was an excellent starting point. Another high light was the inauguration of the Indian board of Micro Restorative and Endodontics. The social events were served as a good relaxation for all. The cultural events were exotic. We are sure that the delegates would have taken back sweet memories

### INCEPTION OF BOARD OF MICRORESTORATIVE AND ENDODONTICS

The Indian Board of Micro Restorative and Endodontics was inaugurated on the 26th November 2018 during our National Conference in Vijayawada by the Honourable President of Dental Council of India Dr.DibyenduMazumder. The President of the Board Dr. Anil Chandra along with the Secretary Dr.SaiKalyan gave introduction about the board and its board members

The board aims to start a DCI approved Fellowship program for the IACDE members. The board certification and Fellowship is a prestigious qualification which carries with it a responsibility to enhance the current practice by using contemporary magnification technologies.

**Vision:** To create the best possible environment for microscopic Endodontist's and Restorative Dentists who shall lead to serve and heal in a variety of health care and social settings to provide the best quality Dental Care using advanced magnification technology.

**Mission:** To graduate and certify knowledgeable, service – oriented, self – assured, adaptable and reflective practitioners who by virtue of their critical and integrative thinking along with clinical reasoning, lifelong learning and ethical values, render independent judgment concerning patient needs which are supported by evidence and also promote the health of the patient to enhance the

professional, contextual, and collaborative foundation for microscopic Resto - Endo practice.

The office bearers of the board.

President - **Dr. Anil Chandra**

Vice President - **Dr.Jaishree Anil**

Secretary - **Dr.SaiKalyan**

Joint Secretary - **Dr.Vinod Kumar**

Board of Directors - **Dr.Karunakar P, Dr. Atool Chandra Bhuyan, Dr. Sangeeta Talwar, Dr.Srinivasan MR , Dr. Unmesh Khanvilkar.**

During the inception the following members were conferred upon the Prestigious Fellowship in Micro Restorative and Endodontics.

**Dr.DibyenduMazumder**

**Dr. Ida De Noronha de Ataide**

**Dr. Ramesh Chandra Das**

**Dr.Vibha Hedge**

**Dr. Sanjay Tewari**

**Dr. Shishir Singh**







The University of  
Glasgow conferred

**Dr.DibyenduMazumder**

President

DCI with the Fellowship

of Royal College of

Physicians and Surgeons

(FDSRCPs)

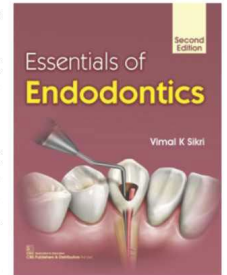
**Dr.DibyenduMazumder** has also been awarded  
with the Lifetime Achievement Award in Dentistry  
at the World Dental Conference 2018 held at Dubai.



**ESSENTIAL OF ENDODONTICS – 2nd Edition**  
**Dr. Vimal Sikri**

The focus of Essentials of Endodontics, second edition is primarily to update the text incorporating all the advances in materials, instruments, and techniques, which have revolutionized Endodontics in the past couple of years; and also add valued knowledge to biological/ biocompatible approach in the treatment phase. The present edition is thoroughly updated. A few new chapters are added, viz. Drugs used in Endodontics, Endodontic case selection, Ethics in Endodontics, etc.

The book will be an asset for the under graduate and post graduate students as well as teachers and practitioners interested in the subject of 'Endodontics'.



### WINNERS OF BEST CASE REPORT 2018

| Sl.No. | Name                | Institute Name                                   | Article Title                                                                                                                           |
|--------|---------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1.     | Dr.Aditi Jain       | Maitri College of Dentistry                      | MTA: The Biocompatible Material of Choice For Direct Pulp Capping In Cariously Exposed Teeth With A Follow Up of 5 Years: A Case Report |
| 2.     | Dr. Padma Sri Yadla | Lenora Institute of Dental Sciences, Rajahmundry | Fracture Reattachment: A Biological Approach to Crown Fracture – A Case Report.                                                         |
| 3.     | Dr. Swati Mohanty   | Saveetha Dental College, Chennai                 | Surgical Management of A Large Periapical Lesion: A Case Report                                                                         |



**Dr. Neelam Mittal**, Professor BHU Varanasi, has been awarded as the "Most Proactive Senior Academician" of the year 2017- 18 at the Guident Dental Academic Excellence Awards held on 24th December 2018, organized at New Delhi.



Congratulations on becoming  
Executive Committee Member  
of Dental Council of India.



**Dr. Ashu Gupta**,  
Professor and Head,  
Conservative Dentistry and Endodontics,  
Government Dental College Shimla,



Congratulations to  
**Dr. Mamta Kaushik**  
for receiving The Most  
Supportive Teacher Award  
from The University of  
Colorado, Anschutz  
Medical Campus



**"Best Oral Research Presentation" at IFEA 11th World Endodontic Congress**

**Dr Poorni S** won the **"Best Oral Research Presentation"** among the 300 abstracts



presented at the  
IFEA 11th World  
Endodontic  
Congress held at  
Seoul, South  
Korea from 4th to  
7th October  
2018.

**Dr. Anitha Rao**, Professor and Head of Department, Mamata Dental College, Khammam won First prize in Badminton Singles and Doubles at the 1st Telangana State IDA Sports Meet -2018 held at Warangal on 9th and 10th November 2018.



**Dr M R Srinivasan**, Professor and Head, Sri Venkateswara Dental College and Hospital, Chennai received the **Award of Excellence** at the Venus International Healthcare Awards ceremony held on 29th September 2018 at Chennai.



### RESEARCH GRANT RECIPIENTS FOR THE YEAR 2018

| Sl.No.                  | Name                    | Institute Name                              | Research topic                                                                                                                  |
|-------------------------|-------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Faculty category</b> |                         |                                             |                                                                                                                                 |
| 1.                      | Dr. Poorni S            | Sri Venkateshwara Dental College & Hospital | "Estimating Genotypic Diversity of Streptococcus mutans Isolated From Caries Active and Caries Free Individuals"                |
| 2.                      | Dr. Roma M              | Manipal College Of Dental Sciences          | Clinical outcome of Indirect pulp capping using Amniotic membrane and Biodentine in permanent teeth                             |
| <b>Student Category</b> |                         |                                             |                                                                                                                                 |
| 1.                      | Dr. Piyush Gupta        | Rural Dental College                        | Effects of Novel Additives on the mechanical and Biological properties of Glass Ionomer cements – An Invitro Study              |
| 2.                      | Dr. Mayana Aameena Banu | Sibar Institute Of Dental Sciences          | Effect of Nonthermal Atmospheric plasma on the bond strength of Composite resin using total etch and self-etch adhesive systems |







## PRESIDENT'S MESSAGE

Dear Members,

Warm greetings!

As it is correctly said by Chris Bradford "Only by binding together as a single force will we remain strong and unconquerable."

Indian Association of Conservative Dentistry and Endodontics was created to be this single binding force to amalgamate all the stalwarts of our fields so that our branch grows and evolves with each passing day.

It was a moment of pride to be elected as President of this esteemed and great association. Since 1982, due to its constant and endearing efforts of all our precedents, it is now one of the most active and powerful associations of our country. I appreciate all the good work done by all the ex-office bearers of our association and look forward for the best support and co-operation from present body. We are very lucky that we have very hard working, sincere, energetic and dynamic Secretary General and President, DCI as our guide, friend and philosopher.

To rise in any branch, it is of utmost importance to constantly update and share our knowledge. For this, IACDE has all through the years, arranged massive and extremely informative conferences and conventions. I hope and wish that it, with constant and rigorous support from all, will scrupulously continue to do so and more.

On the official website of IACDE, Clinical registry of cases is helping to archive interesting cases across India and act as a database especially for the Indian population which is resourceful for clinicians and will help to provide patient care. Information for patients is also available so that they may get aware about routine dental procedures and avail them without fear. Also, the website helps to keep updated with the upcoming CDEs and programs. The speaker bank which is available on the website is one of its kinds in the whole country and helps the organizers of the conference to choose from the best.

Website also offers link to the official publication of IACDE, Journal of Conservative Dentistry which has made possible for so many of us to showcase our researches and clinical cases. The indexing of JCD in Medline will definitely bring a welcome change in further increasing the publication trends among the Indian Conservative Dentists and Endodontists as they now have an indexed portal for reaching out their scientific contributions.

IACDE offers Student Exchange program as well as various research grants and awards to encourage our younger generation to gather knowledge and excel in the field as well to felicitate our seniors for their outstanding performance.

I am very happy to inform that we have launched Indian Board of Micro-restorative and Endodontics (IBMRE) this year.

Looking into the future year, IACDE would continue to focus on crucial matters of our branch and would encourage activities which bring out awareness about importance of our branch in common public by arranging symposiums and lectures throughout the country.

We are planning to cross the borders for better recognition of our association internationally.

And as Hellen Keller has quoted "Alone we can do so little; together we can do so much"

So let's join hands together and evolve for a better tomorrow.



Yours truly,  
**Dr Girish Parmar,**  
President, IACDE.

## EDITORIAL



**Dr. Mamta Kaushik**  
Editor, Pins & Post

### Paperless Dentistry - where do we stand?

Even though I agree with the Jeanette Winterson that, "If you start taking books off shelves then you are only going to find what you are looking for, which does not help those who do not know what they are looking for." And I add that you don't find anything new.

But in the Dental offices and life otherwise we need to find a way in the world of Digitalization.

Modern Dental Practice is growing rapidly. To keep up with the growing trend, we need to create a practice that is more efficient and more tech savvy. Alongside we may benefit with a practice which costs less to run, and allows decentralization of the front office.

The choice of this topic started as I am slightly old school and like books more than the kindle. But in the dental office we need stay environmentally as well as technologically updated. While this is easier for a start up, it can be quite a challenge for existing dental practices.

We can move about this in a gradual fashion. When a generation which has seen floppy discs and slide projectors and is now adapted to pen drives, zipping and powerpoints; it is time to implement changes in the dental office – one by one.

I am sure all of us will agree that digital radiographs as well as digital photographs are few of the best things that happened to us in dentistry. Thankfully their acceptance has been easy. We now need to gradually adapt to a paperless office.

We should start with the simplest – digital radiographs and photographs.

The Practice management software would be one which can run parallel to the imaging software where our appointment schedules and other inventory can be monitored easily.

The patient's medical and dental records should follow maintained in software meant for the purpose. So we can be sorted with an image management software and patient database software.

If I think as a patient in a hospital the tough part for me to understand and accept, is the security of the data and the manipulation of the data after I leave. Here, as we have it in hospitals, the data of our findings and procedures can be made in the system and then e-mailed or printed and given to the patient for his/her records. This way we can assure the patient about the treatment rendered and foolproof our data against manipulation.

The patient's history and consent forms pose another challenge. Where the history is simpler if we have compatible software, the informed consent forms are more delicate and require more sophisticated equipment to be completely digitalised. I would suggest that the consent forms also be signed and scanned into each patient's database till such an upgrade in the equipment and the ability to use to equipment is acquired.

We can even use software to create treatment plans.

The operatory designing with multiple monitors, at front desk, in the doctor's office, for patients education and image viewing, one for office staff viewing of appointments, sensitive information and charting maybe another step which will take us closer to going paperless.

Fortunately, we don't need to have an overnight change; the change can be very gradual with one step at a time. Another aspect to consider will be the computer hardware, digital systems and data protection. Online back up and firewalls as well as stealth proofing is mandatory as the information present is personal and sensitive.

We don't need to start investing into new computers and likewise, it maybe a sensible idea to learn to use our existing systems and upgrading those. Also to cloud all the data each day so that it's retrievable in case of an emergency.

The benefits of going paperless are many, electronic storage of data is easier to pull out and filing. There are no missing case sheets and data. And data is easy to access from anywhere. The space needed to store the files is also saved. Patients' questions can be handled well and their insurance and treatment data is easy to recollect and/or transfer,

Payments – salaries, laboratories, material supplies, inventory for the materials, internal communication, e mails, external communications, online appointments; the list is endless.

Few colleges and lot of clinics have gone paperless and adopted digitalization. I am sure the software available is just going to get better and more comprehensive. Small clinics can start taking small steps towards this.

*"The digital world has been in a separate orbit from our medical cocoon, and it's time the boundaries be taken down."* - Eric Topol





### Inception of "MACE"



It was a proud moment for the West Zone with much awaited launch of Maharashtra Association of Conservative Dentistry and Endodontics "MACE", a prestigious body established on 14th October 2018.

The inception of MACE took place in presence of esteemed dignitaries, DCI President Dr. Dibyendu Mazumder and IACDE President Dr. Girish Parmar, Secretary IACDE Dr. B. Mohan and other dignitaries like Dr. Karunakar, Dr. Balram Naik, Dr. Murli Mohan and Dr. Ratnakar,

The West Zone Coordinator of IACDE and Secretary of MACE, Dr. Vibha Hegde was instrumental in the establishment of MACE.

Under her able leadership and untiring efforts "MACE" saw a huge gathering from various parts of Beed, Dhule, Sangamner, Ahmednagar, Nasik, Pune, Sangli, Kolhapur, Loni and Mumbai.

The event kicked off with scientific deliberations and felicitation of all senior colleagues, faculty and veterans who have contributed to the fraternity.

Dr. Anand Mohatta as President and Dr. Abrar Sayed as Scientific Convener, the event was launched successfully with cheers and enthusiasm from all members.

### OXFORD DENTAL COLLEGE, BENGALURU

The Department of Conservative Dentistry and Endodontics at the Oxford Dental College, conducted a CDE programme on "Predictable Endodontics with New Nickel Titanium Files" by Dr. Jayshree Hedge on 28th November 2018.

The programme included lecture followed by demonstration and Hands on experience for the participants which included post graduate students and faculty.



### 33rd IACDE NATIONAL CONFERENCE, VIJAYAWADA SCIENTIFIC PRESENTATION WINNERS LIST

#### STUDENT CONSERVATIVE DENTISTRY PAPER PRESENTATION

Dr. Namrata Anil Bajpai- K.M. Shah Dental College  
Dr. Gayathri P - Govt Dental College, Trivandrum  
Dr. Ankita Anil Mundada- Muhs, Nasik

#### STUDENT ENDODONTIC PAPER PRESENTATION

Dr. Yoga Padma - Adhiparasakthi Dental College.  
Dr. Priyanka Paulose - Aims  
Dr. Snigdho Das - Dr. R. Ahmed Dental College  
Dr. Vidya Venkat - Srm Dental College

#### STUDENT CONSERVATIVE POSTER PRESENTATION

Dr. Keerthi Vasan - Dr. Anjali, Dr. Madhusudhan - SRM Dental College Ramapuram  
Dr. Mrinalini - A.B. Shetty Memorial Institute Of Dental Sciences  
Dr. Shivani Deshande - New Horizon Dental College And Research Institute, Bilaspur

#### STUDENT ENDODONTIC POSTER PRESENTATION

Dr. Y Sita Manasvi - Amritha School Of Dentistry  
Dr. Swathi Markandey - Dr. R. Ahmed Dental College And Hospitals  
Dr. G Sai Charan - Mahe Institute Of Dental Sciences

#### DELEGATE COMPETITIVE CONSERVATIVE RESEARCH

Dr. Mithra Hedge  
Dr. Divya Kunam

#### DELEGATE COMPETITIVE ENDODONTIC RESEARCH

Dr. Seema Yadav  
Dr. Neha Mehra

#### DELEGATES COMPETITIVE ENDODONTIC CASE REPORT

Dr. Rajiv T Khode  
Dr. Pradeep S

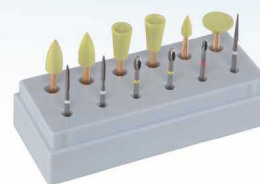
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## PANEL DISCUSSION

### PANEL DISCUSSION

### REPLANTATION Vs IMPLANTS

#### REPLANTATION



**Dr Sarjeev Singh Yadav**  
B.Sc;B.D.S;M.D.S.  
Prof. & Head  
Dept. of Conservative Dentistry & Endodontics  
Government Dental College & Hospital  
Hyderabad

*Life is a constant oscillation between the sharp horns of dilemmas.*

H. L. Mencken

#### Replantation VS Implantation

Clinicians frequently face the dilemma of whether to Endodontically treat and retain a questionable tooth or to extract and potentially replace it with a dental implant. As an Endodontist our emphasis is on saving natural teeth but the Patient Considerations should be kept in mind during decision making

According to **Dr. Goldstein**, "The recommended treatment must be safe, mindful of the patient's wishes, and should aim at preserving the natural tooth when possible."

Following systematic evaluation and consideration of the best treatment option in a particular case, a treatment recommendation may then be given in favour or against tooth retention

Limitations of both the treatment procedures should be considered before decision making. Reports have stated that Replantation has been successful in young permanent teeth with immature apices. Survival of periodontal ligament and the preservation of cells of root surface is vital whereas Implants are expensive, they require surgery, a lengthy procedure, systemically the patient needs to be healthy, because there are more chances of infection.

Both the treatment procedures require sound underlying biologic structure without which the treatment success becomes questionable. However, before choosing the treatment option, it is necessary to know the advantages and the disadvantages for each procedure.

With regard to growing patients, replantation, offers several advantages such as maintaining a viable periodontal ligament, offering the possibility of an orthodontic movement, continuous alveolar growth while preserving alveolar volume; in case of failure, the replanted tooth do not exclude the option of implant placement. After replantation, the healing occurs rapidly and the function is obtained almost immediately. Surgical and post-surgical operations are generally easier for replanted teeth than for implant-supported single crowns.

With regards to Implants they best work in adult patients with sound bone and systemically healthy individuals. In contrast to endodontic therapy, implants are placed into relatively healthy surroundings. Complications and failures, however, occur either prior to implant osseointegration or after initial successful osseointegration and disease manifestation may necessitate after several years of function. Implant success can be further compromised by several biological and technical complications like peri-implant diseases, complications related to mechanical damage of the implant, implant components and/or the superstructure

Risk factors for developing peri-implant diseases are patient-related (e.g., susceptibility to periodontitis, diabetes), environmental (e.g., cigarette smoking, alcohol consumption), technological (e.g., exposed rough implant surface), or local. These local factors comprise poor personal plaque control, or iatrogenic factors such as insufficient access for oral hygiene due to implant position and/or restoration contour, or excess cement.

However the aim of both the treatment procedures is to allow the rehabilitation of the patients masticatory system. When the procedures are performed carefully both the treatments offer good outcomes with acceptable survival rates. Knowledge of the prognosis, the surgical procedure, the risk and benefits may assist patients and dentists in effective decision-making.



**Dr. Smita**  
Professor  
Sri Sai Dental College and Hospital  
Vikarabad, Kothrepally

Tooth replantation is the re insertion and splinting of a tooth that has been avulsed or intentionally extracted from its socket. Post replantation healing occurs rapidly and function is regained almost immediately.

Osteo induction properties that result in bone regeneration around replanted teeth are considered an advantage compared to implants. They provide proprioception just like any other teeth as well retain their natural esthetics and function unlike implants which are contraindicated in growing children. Implants fail to adapt along the developing dentition which results in infra occlusion apart from esthetics and functional requirements. When standard protocols are followed, success rate is over 90%. Replantation(s) are more cost effective than single tooth implants, in case of failure there is always an alternative of an implant. In an effort to retain the natural tooth, replantation(s) should be considered as a reliable and predictable procedure and not as a last resort. If carefully performed with proper case selection, success can be achieved with predictable survival rate.

#### IMPLANTS



**Dr. Kishore Moturi**  
Prof & Head  
Oral and Maxillofacial Surgery  
Vishnu Dental College  
Bhimavaram  
Andhra Pradesh

With progress in technology and material science Implantology has improved by leaps and bounds providing a better success and quicker return to normal function with good esthetics. A definite success rate is provided by dental implants without ambiguity in cases of traumatic avulsion of teeth. Replantation of avulsed teeth inspite of best efforts of Endodontists still fail due to many reasons both intrinsic and extrinsic.

Not in all trauma cases, can the avulsed tooth be retrieved, preserved in a viable state and brought to a dentist in time for replantation. This maybe due to lack of awareness in patients about the medium and time in which it can be transferred. An avulsed tooth is commonly brought to a dentist by patients or their attendants contaminated with dirt from the site of trauma. They are either wrapped in paper or cloth and brought much later which maybe hours or days. Viability of cells and prognosis is questionable in such scenarios.

Various studies have shown that immediate placement of dental Implants in a fresh socket has a better prognosis. Though placement of implants in a growing child may not be esthetically successful in the long term yet it is a definite option in adult patients.

Definition of "Successful survival" is vague in most of the literature available comparing "Replantation versus Implantation". Few systematic and meta analysis reviews are available which do not provide a level of evidence and confidence for both sides of the argument.

In traumatic injuries, there is an associated loss of the alveolar process along with teeth. In such cases replantation may not provide a successful outcome compared to an implant with bone grafting. Same is the case with avulsion of multiple teeth. A two stage approach of immediate implant placement followed by a second stage superstructure provides good function and esthetics.

With advent of angled abutments, esthetically better prosthesis can be provided inspite of pre-existing malpositioned or malaligned anterior teeth removing the need for orthodontic corrections. Replantation in posterior region has a questionable prognosis compared to a predictable result with implants. Relief from occlusal loading immediately after replantation is difficult compared to implants which can be covered by the mucosal flap and exposed later following osseointegration.

Both "Replantation and Implantation" require certain degree of skill, training and pose a challenge to the operators. Problems of osseointegration of implants or healing following replantation in patients with either medically compromised status or habits like smoking may result in poor outcomes for both.

Hence a patient centric approach or situation specific option has to be planned and implemented. At present, there exists no single definite remedy for all scenarios and it can only be debated in academic forums.



**Dr. Afreena Imami**  
Periodontist  
Private Practitioner  
Chennai

#### Dental Implants over Root Canal treatment

Deciding whether to get a dental implants or root canal when a patient has a diseased or otherwise compromised tooth is a hot topic issue. While most dental professionals agree that priority should be placed on saving the natural tooth, not everyone agrees on when dental implant should be placed instead of performing a root canal.

#### The Right Solution:

The initial instinct of dental professional to save a tooth plus the complicated criteria that must be met to be eligible for dental implants often lead dental professional to suggest a root canal treatment over dental implant.

In the journal of dental research, the authors noted both implants and endodontically treated teeth demonstrate significant outcome rates if the treatments are appropriately chosen and rendered. However, a missing tooth is irreversibly gone, and a tooth should be removed only after worthwhile deliberation. There is no lifetime guarantee for either a natural tooth or an implant. Both options should be seen as a complementing each other, not as competing and should serve the overall goal in dentistry, the long term health and the benefit of the patients, being least invasive and incorporating function, comfort and esthetics.

Despite the dentist's best efforts to clean and seal a tooth, new infections might emerge after a root canal. Among the likely reasons for this include; More than the normally anticipated number of root canals in a tooth (leaving one of them uncleaned), An undetected crack in the root of a tooth. A defective or inadequate dental restoration that has allowed bacteria to get past the restoration into the inner aspects of the tooth and recontaminate the area. A breakdown of the inner sealing material over time, allowing bacteria to recontaminate the inner aspects of the tooth.

In the article "Dental Implants vs Root Canal" the author says root canal therapy is the best treatment option if the tooth will be able to survive for a long time. On the other hand, if the tooth has "little - remaining tooth structure" then extraction may be better for health.

However, "Predictable dentistry dictates, that if the tooth is salvageable a root canal therapy shall be performed first" but if heroic feats are needed a dental implant can be chosen to replace it.



## A new approach to diastema closure

Esthetic diastema closure achieved with an advanced composite resin and excellent technical skills  
An article by Dr Ali H. Özog̃lu, Adana/Turkey

The perception of beauty is a personal thing; everyone has their own esthetic standards. While a small gap between the central front teeth, for example, may be considered “beautiful” by one person, another one will perceive it as a flaw. Fortunately, a number of different treatment options are available to rectify this problem: e.g. the direct method involving composite resin. The most difficult aspect of the diastema closure process for the dentist is the design of the gingival emergence profile and the creation of the new midline between the incisors. This article discusses a new approach for diastema closure.

### Case study

A young female patient consulted us because she was dissatisfied with a comparatively wide gap between the two upper front teeth (Fig. 1). The situation was examined in detail and then the patient was presented with the treatment options available to her. The patient declined to have the gap closed by means of orthodontic measures. Instead, she asked for the least invasive and least time-consuming approach available. Therefore, we recommended using a technique involving a direct composite resin.

Our material of choice for this kind of work is the light-curing universal composite Tetric® N-Ceram. This nanohybrid composite resin is comprised of different fillers of various sizes. It favourably adapts to the shade of the natural teeth. The patented light controller contained in the product reduces the material's sensitivity to ambient light. As a result, the operator has adequate time to devote to the sculpting and contouring of the restoration. On the basis of the shade selection process, we decided to use Tetric N-Ceram/N-Flow in shades A2, A3.5 Dentin and T.

The mesial surfaces of the incisors were lightly prepared with a red diamond bur. The prepared tooth surfaces were conditioned according to the total-etch technique, and Tetric N-Bond Universal was used as the bonding agent (Fig. 2).

A matrix band (Ivory) was used to help with the build-up of the proximal tooth surfaces. The Ivory matrix band was bent and the curved metal part was directed towards the gingiva. The bent metal band was then carefully placed in the gingival sulcus. Subsequently, a suitable emergence profile was created for the composite restoration (Fig. 3). A flowable composite (Tetric N-Flow A2) was used for this purpose. The right central incisor was built up first, followed by the left central incisor.

The emergence profile of the two front teeth (Tetric N-Flow A2 in the sulcus) was optimally shaped with the help of a matrix band.

The metal band was placed between the two built up composite areas and the midline of the diastema was marked in the incisal region (Fig. 4). After the midline had been marked with Tetric N-Flow A2, the labial parts of the restoration were built up with Tetric N-Ceram A2 (Fig. 5). The palatal areas were contoured with Tetric N-Ceram A3.5 Dentin (Fig. 6). The dimensions and contours of the tooth were adapted to suit the shape of the natural teeth (Fig. 7).



01 — Preoperative situation.

The patient was dissatisfied with the gap between her front teeth.



02 — Conditioning of the lightly prepared teeth using the acid-etch technique



03 — Placement of the matrix band for the build-up of the distal surface of the right central incisor



04 — The midline of the diastema is marked and a flowable composite is used to secure the metal band in place.



05 — After the midline has been marked, the labial area is built up with Tetric N-Ceram A2.





06 — The palatal area is contoured with Tetric N-Ceram A3.5 Dentin.



07 — The right central incisor after the build-up with composite

Next, the distal surfaces of the left central incisor were built up according to the same procedure (Figs 8 and 9). The composite resin areas were polymerized and subsequently finished, smoothed and polished. For this purpose, red diamond burs and then finishers (grey and white) were used (Fig. 10). Finally, the restored teeth were polished with Soflex discs as well as a one-step diamond polishing system (OptraPol®) and high-gloss polishing brushes (Astrobrush®) (Figs 11 and 12).



08 — The labial part of the contralateral central incisor is built up in the same way ...



09 — ... and the palatal side is restored with Tetric N-Ceram A3.5 Dentin.



10 — After the application of the last labial composite resin increment (Tetric N-Ceram T)



11 — The outcome immediately following the build-up of the two teeth



12 — The result after six months

#### Conclusion

The approach described in this article allows a diastema to be closed with relatively little effort. The built-up parts of the teeth are virtually indistinguishable from the natural tooth structure.




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**Dr. Shishir Singh**

Dean, Professor and Head  
Terna Dental College and Hospital  
Navi Mumbai, Maharashtra

### 1) What are the indications for microbiologic evaluation in endodontics?

The indications for microbiological evaluation in endodontics are:

- To quantify/measure the bacterial load in the root canal.
- To study the reduction microbial load between Root canal sittings.

- For microbiology-based studies in clinical endodontics and in an academic setting.
- To isolate endodontic microorganisms.
- To study the antibiotic sensitivity to isolated endodontic pathogens.
- Used to confirm presence of persisting infection in failed cases.

### 2) What is the correct method to obtain a root canal sample root canal?

The root canal sampling technique is as under:

- After rubber dam isolation the operative field and tooth is disinfected by swabbing with sodium hypochlorite solution (1% -5.25%) or 5% tincture of iodine or 30% hydrogen peroxide.
- Root canal access is gained with a sterile bur as per standard operating protocols.
- The root canal is filled with sampling fluid such as sterile saline or distilled water using a 27 gauge needle and a hypodermic syringe.
- Two Sterile paper points are placed in the root canal respectively for one minute to collect the root canal culture sample and transferred into two separate presterilized tubes containing 2% brain heart infusion broth (BHI broth).
- Before transferring the paper point the tube opening may be flamed carefully to ensure a sterile environment. The paper point is transferred into the culture tube and sealed at once.
- One tube is used for aerobic culturing and the other for anaerobic culturing in the microbiology laboratory.
- The medium is then serially diluted and inoculated into an appropriate nutrient broth and/or agar plates. These are aerobically and anaerobically incubated for a period of time long enough to allow even slowly growing species to form colonies.
- Results are microbiologically analysed using growth/no growth determination or identification of isolated microorganisms based on colony morphology, micromorphology, and both physical and biochemical tests.

### 3) Do we need to use Transport Media? If yes, then what can we use.

Yes we need to use Transport media. Routinely available microbiological media for aerobes and anaerobes (including facultative anaerobes) may be used.

A few commonly used transport media for root canal culturing are:

- Brain heart infusion broth with 0.1% agar
- Trypticase soya broth with 1% agar [TSA]
- Thioglycollate broth.
- Glucose ascites broth
- PRAS-peptone- yeast extract broth
- VMGA.III (Viability Medium Goteborg Agar)

### 4) What is the maximum transport time for a microbiologic sample?

Usually the samples are transported to the laboratory and processed as soon as possible, or within 24 hours at the latest depending on the transport medium used.

### 5) How to know whether adequate microbial sample has been obtained from the root canal or not?

The canal is flooded with saline or transport medium solution, a sterile file is used to pump the fluid and scrape the canal walls to bring the canal contents into the solution. The solution is then absorbed onto a presterilized paper points (2 to 3 points). The last point is the most important as it wicks the solution from the apical-most region of the canal. Adequate sampling can only be obtained by performing pumping movements with a sterile file before taking a sample.

### 6) Which are the conditions that may result in a false negative culture in clinical conditions?

- Inadequate sample or improper sampling technique
- Presence of bacteria in inaccessible areas of the root canal like fins and isthmuses non adherent biofilms that cannot be sampled, these bacteria can repopulate a canal after the first sample
- Carry over effect of chemicals like calcium hydroxide and sodium hypochlorite
- Sampling from a previously treated tooth where guttapercha removal can remove some or all of the cultivable bacteria accessible to paper-point sampling

### 7) Are there any chairside culturing techniques to evaluate the periapical lesion before starting the endodontic treatment?

Chairside assays based on detecting ATP from live bacteria that give results within 5-10 minutes have been developed. Some of these studies report good sensitivity. However, these are for intracanal samples and not for samples from the periapical tissues. (the question says "periapical lesion"). However, no species identification is possible with these assays. It is also not possible to quantify the bacterial load with assays.

### 8) What empirical therapy should be used in a patient with periapical abscess till the time culture results are obtained?

- Locally root canal access and allowing the abscess to drain followed by irrigation with sterile saline may be done. The apical foramen might need to be perforated to establish patency for the pus drainage. (Avoid using irrigants that can be carried periapically at this stage to prevent an untoward reaction.)
- A Calcium hydroxide dressing may be given followed by a three day recall.
- Depending on the severity and the signs and symptoms a course of broad spectrum antibiotics with an anti-inflammatory may be prescribed to allay the pain and discomfort and help periapical healing.

### CHAIR SIDE ANAEROBIC CULTURE TEST

Rubber dam is applied, and the tooth surface and rubber dam are disinfected with iodine tincture and 70% alcohol. Then, the root canal chamber is opened using a low-speed engine without water coolant. A sterile paper point (#25) is introduced into the full length of the canal (as determined by a preoperative radiograph) and kept in position for 60 seconds. The paper point then is removed, and nine parallel lines are slowly drawn on the surface of a prereduced Modified-CDC anaerobe 5% Sheep Blood agar plate with a chip of the paper point. The plate and an anaerobic gas-producing pouch are immediately set in an anaerobic jar. The jar is then incubated at 37°C for 3 days. The numbers and thickness of lines made by bacterial colonies are checked at each treatment procedure.

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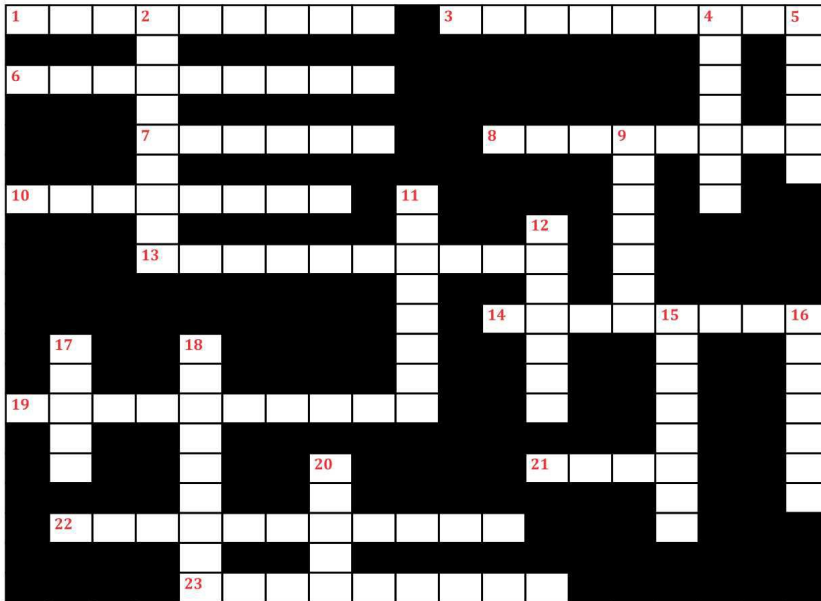
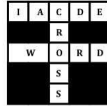


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| ACROSS                                                                                                               | DOWN                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 1. Metal saliva ejector attached with a tongue deflector                                                             | 2. Process of removal of dissolved gases                                                                   |
| 3. Prefilled calcium hydroxide, single dose syringe system                                                           | 4. Destruction of tooth enamel by physical or chemical action                                              |
| 6. New caries identification device that enables to diagnose caries at an early stage                                | 5. Modified technique for restoring small proximal caries in order to preserve marginal ridge              |
| 7. Filler                                                                                                            | 9. Organically modified ceramic.                                                                           |
| 8. Anticariogenic mineral                                                                                            | 11. Flexible dam with three dimensional design                                                             |
| 10. Chemo-mechanical method of removal of caries                                                                     | 12. Design for class 3 preparation for direct gold filling                                                 |
| 13. Rotary gingival curettage                                                                                        | 15. A non-latex, single use, pre-assembled dental dam with built-in flexible frame and a pre-punched hole. |
| 14. Endo irrigation needles with leur connector for secure attachment and easy removal of Pulpal debris and microbes | 16. True apical negative pressure irrigation system                                                        |
| 19. Phenomenon of two objects appearing to match in color under one light but looking Different under another        | 17. Time dependent plastic deformation                                                                     |
| 21. Irrigant with ability to remove smear layer and antibacterial property                                           | 18. Lab made porcelain or plastic veneer bonded to the front of tooth.                                     |
| 22. Process of mixing amalgam alloy with mercury                                                                     | 20. Skill that sounds like the proximal portion of an inlay cavity                                         |
| 23. Polymer burs with controlled dentin preparation                                                                  |                                                                                                            |

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1

#### 2. OMCAPTNOIC

3

#### 3. GRIOARINIT

5

#### 4. RMOGAITC

4

#### 5. TSNIGAC

7

E N

### RECIPE



**Dr.S. AnithaRao, MDS**  
Professor & Head  
Mamata Dental College  
Khammam

#### RED VELVET MUFFINS / CAKE



#### Ingredients

- 2 cups all-purpose flour
- 1 teaspoon baking soda
- 1 teaspoon baking powder
- 1 teaspoon salt
- 2 Tablespoons unsweetened cocoa powder
- 2 cups sugar
- 1 cup vegetable oil or canola
- 2 eggs
- 1 cup buttermilk
- 2 teaspoons vanilla extract
- 1-2 oz. red food coloring, more or less depending on how deep you want the color
- ½ cup plain hot coffee, prepared (don't skip this ingredient)
- 1 teaspoon white vinegar

#### INSTRUCTIONS

1. Preheat oven to 325 F.
2. In a medium bowl, whisk together flour, baking soda, baking powder, cocoa powder, and salt. Set aside.
3. In a large bowl, combine the sugar and vegetable oil.
4. Mix in the eggs, buttermilk, vanilla and red food coloring until combined.
5. Stir in the coffee and white vinegar.
6. Combine the wet ingredients with the dry ingredients a little at a time, mixing after each addition, just until combined. (Batter will be thin)
7. Pour the batter evenly into each pan.
8. Bake in the middle rack for 30-40 minutes or until a toothpick inserted in center comes out with moist crumbs clinging to it. Do not over bake as the cake will continue to cook as it cools.
9. Let pans cool on a cooling rack until the pans are warm to the touch.

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| Sl. No. | Date                    | Events                                                                                                                         | National / International | Venue                    |
|---------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| 1.      | 18- 19th Jan 2019       | 3rd National Conference of Academy Of Cosmetic Dentistry                                                                       | National                 | Hyderabad-India          |
| 2.      | 5th - 7th Feb 2019      | AEEDC Dubai Conference                                                                                                         | International            | Dubai- UAE               |
| 3.      | 8th -10th Feb 2019      | Endovista                                                                                                                      | National                 | Mumbai- India            |
| 4.      | 8-10th March 2019       | 20th IACDE PG Convention                                                                                                       | National                 | Chandigarh-India         |
| 5.      | 4th April 2019          | International Conference on Dental and Clinical Dentistry (ICDCD-19)                                                           | International            | Norway                   |
| 6.      | 6th- 7th April 2019     | International conference on laser dentistry and microscopic dentistry                                                          | International            | Ranchi- Jharkhand        |
| 7.      | 24th- 27th April 2019   | 20th Scientific Congress of Asian Pacific Endodontic Confederation & 14th International Congress of Turkish Endodontic Society | International            | Istanbul-Turkey          |
| 8.      | 2nd- 4th August 2019    | 12th Indian Society of Prosthodontics-Restorative-Periodontics National Conference 2019                                        | National                 | Mysuru- Karnataka        |
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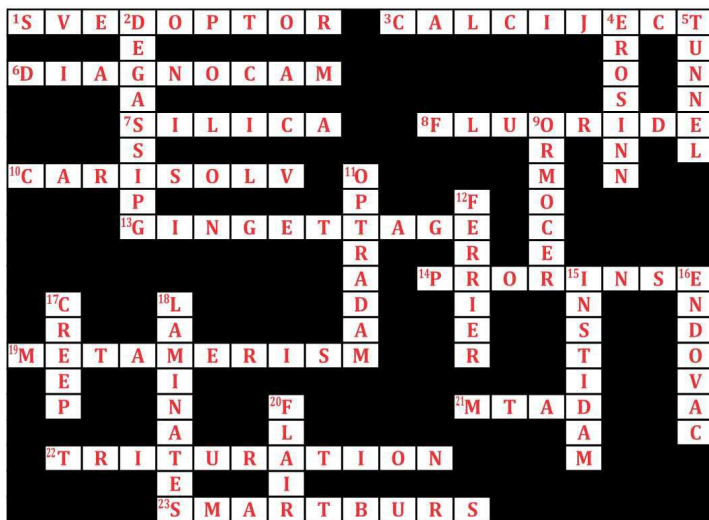
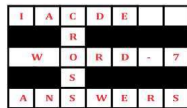


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## 2. OMCAPTNOIC

C O M P <sup>3</sup>A C T I O N

## 3. GRIOARINIT

<sup>5</sup>I R R I G A T I O N

## 4. RMOGAIITC

G I R O <sup>4</sup>M A T I C

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C A S T I N <sup>7</sup>G

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