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Case Report

Calcifying Epithelial Odontogenic Cyst of Maxilla: Report of A Case and Review and Discussion on the Terminology and Classification

Ajay Chandran, S. Nachiappan, Rajkumar Selvakumar¹, Srikanth Gunturu², U. Vijaya Lakshmi², K. Bharathi³, J. Suresh Babu⁴, C. Swarnalatha⁴,
Abhishek Singh Nayyar⁵

Department of Oral and Maxillofacial Surgery, Sathyabama Dental College and Hospital, ²Department of Oral and Maxillofacial Surgery, Tagore Dental College and Hospital, Chennai, ¹Department of Oral and Maxillofacial Surgery, Rajah Muthiah Dental College and Hospital, Annamalai University, Chidambaram, Tamil Nadu, ²Department of Oral and Maxillofacial Surgery, Drs Sudha and Nageswara Rao Siddhartha Institute of Dental Sciences, Gannavaram, Andhra Pradesh, ³Department of Oral Medicine and Radiology, Saraswati Dhanwantari Dental College and Hospital and Post-graduate Research Institute, Parbhani, Maharashtra, India, ⁴Department of Preventive Dental Sciences, Division of Periodontology, College of Dentistry, University of Ha'il, Ha'il, Saudi Arabia

Canal Localization in Dry Mandibles: Two-Dimensional versus Three-Dimensional Imaging

Ajay Chandran, Puttaraj T Kattimani¹, S Nachiappan, Marbon A Joewitson², Sreetama Chatterjee³, Aarti M Rajambigai⁴, Maneesha Das⁵, Abhishek Singh Nayyar⁶

Department of Oral and Maxillofacial Surgery, Sathyabama Dental College and Hospital, Chennai, ²Department of Oral and Maxillofacial Surgery, Sree Mookambika Institute of Dental Sciences, Kanyakumari, ⁴Department of Prosthodontics and Crown and Bridge, Rajas Dental College and Hospital, Tirunelveli, Tamil Nadu, ¹Department of Prosthodontics and Crown and Bridge, SB Patil Dental College and Hospital, Bidar, Karnataka, ³Department of Prosthodontics and Crown and Bridge, Santosh Dental College and Hospital, Ghaziabad, Uttar Pradesh, Departments of ⁵Conservative Dentistry and Endodontics and ⁶Oral Medicine and Radiology, Saraswati Dhanwantari Dental College and Hospital and Postgraduate Research Institute, Parbhani, Maharashtra, India

ABSTRACT

Context and Aim: Dental implants are widely used for the rehabilitation of edentulous arches. Yet, placement of oral implants in the mandible is associated with numerous complications, including hemorrhage and neurosensory disturbances. Enumerating precise information concerning the vital structures of the mandible, thus, becomes all the more important before the placement of implants. The aim of the present study was to determine the efficiency and accuracy of digital orthopantomography (OPG) and cone-beam computed tomography (CBCT) in determining the location of mandibular canal in preoperative assessment of the mandibles for implant placement. **Materials and Methods:** Ten dry edentulous mandibles of adult humans were selected for this study which comprised two phases, namely a radiographic phase and an *in vitro* phase. The radiographic phase was based on the obtaining digital orthopantomographs and cone-beam computed tomograms. During the *in vitro* phase, all the mandibles were sectioned at an angle of 90° to the inferior border of the mandible, and *in vitro* measurements were obtained. **Statistical Analysis Used:** Statistical analysis was done using IBM SPSS statistics 20 (Chicago, IL, USA). Paired and unpaired *t*-tests were used to do a comparative analysis of the two modalities used. $P < 0.05$ was considered to be statistically significant. **Results:** The results of the present study revealed that the measurements of both the vertical (D1 and D2) and the buccolingual distances of the mandible (D3 and D4) obtained by CBCT were in accordance with the ones obtained with the help of *in vitro* measurements, and there was no statistically significant difference in the studied variables (D1, D2, D3, and D4) between the two measurements. On the contrary, there was a significant statistical difference between the values obtained from digital OPG (D1 and D2) when compared to the values obtained by *in vitro* measurements. **Conclusion:** The findings of the present study implied that CBCT is the most efficient and accurate diagnostic tool available to locate the course of mandibular canal in the selection of potential

ORIGINAL RESEARCH

Comparative Evaluation of the Antioxidant Effects of Oregano on Bleached Enamel Using Energy-dispersive X-ray Spectroscopy Analysis: An *In Vitro* Study

Bharath Naga Reddy¹, Sabari Murugesan², Shanmugavadivel Gandhi³, Sujith Rajamohan⁴, Buggaveeti Pradeep Kumar⁵,
Purushotham Mohankumar⁶

INTRODUCTION

Tooth discoloration can be broadly categorized as extrinsic and intrinsic discoloration. Intrinsic discoloration occurs predominantly during the developmental stages of tooth. It includes amelogenesis imperfecta, dentinogenesis imperfecta, and enamel hypoplasia.

Drug-induced discoloration occurs due to the consumption of drugs during the formative stages of enamel and dentin. The acquired stains occur due to variety of causes, which can be grouped as microbial, dietary, and lifestyle changes. It predominantly affects the enamel and dentin components of hard tissues. A chemical interaction occurs between the acquired enamel pellicle, carbohydrate component of diet, and chromogenic microbes to produce the discoloration.¹

The selection of bleaching as a treatment option depends upon the severity of discoloration. In mild to moderate cases, it is selected

^{1,5}Department of Conservative Dentistry and Endodontics, Adhiparasakthi Dental College and Hospital, Melmaruvathur, Tamil Nadu, India

²Department of Restorative Dental Sciences, College of Dentistry, Jazan University, Jazan, Kingdom of Saudi Arabia

³Department of Pedodontics and Preventive Dentistry, Sri Venkateswara Dental College, Puducherry, India

⁴Department of Conservative Dentistry and Endodontics, Mamata Dental College and Hospital, Khammam, Telangana, India

⁶Department of Conservative Dentistry and Endodontics, Sathyabama Dental College and Hospital, Chennai, Tamil Nadu, India

Corresponding Author: Bharath Naga Reddy, Department of Conservative Dentistry and Endodontics, Adhiparasakthi Dental College and Hospital, Melmaruvathur, Tamil Nadu, India, Phone: +91 9444792260, e-mail: drbharathendo999@gmail.com

ORIGINAL RESEARCH

Comparative Evaluation of the Efficacy of Novel Root Canal Irrigation Techniques on Reduction of *Enterococcus faecalis* Count: An *In Vitro* Study

Sabari Murugesan¹, Arasappan Rajakumaran², Buggaveeti Pradeep Kumar³, Arumugam Balatandayoudam⁴, Purushotham Mohankumar⁵, Bharath Naga Reddy⁶

INTRODUCTION

The primary objective of nonsurgical endodontic treatment relies in eradication of microbial infection and preservation of vitality of pulp tissue. Endodontic success relies on the implementation of "endodontic triad," which includes effective instrumentation, disinfection, and obturation.¹

The complexity of the canal anatomy with fins, lateral canals, and apical deltas makes it inaccessible for instrumentation. Disinfection protocols comprise of removal of residual tissue, microbes, and debris to reduce the bacterial load.²

The root canal flora is dominated by obligate anaerobic bacteria with mixed population. *Enterococcus faecalis* has been associated with secondary infections of the failed endodontic treatment.³ The unique feature of the bacteria depends on the distance traveled from the surface to the internal aspects of the radicular dentin.⁴

The study has been designed to review the efficacy of conventional irrigation system on reduction of bacterial load with a novel irrigation system.⁵ Measures to improve the replenishment and exchange of irrigant that arises due to vapor lock effect in the apical third of the root canal system has been initiated.⁶

Dynamic irrigant activation system comprises of manual and machine-assisted activation devices. Manual irrigation techniques tested in our study includes Max I probe and Navitip FX, which works on the principle of delivering the irrigant with positive pressure in the apical third of the root canal system.⁷

¹Department of Restorative Dental Sciences, College of Dentistry, Jazan University, Jazan, Kingdom of Saudi Arabia

²Department of Conservative Dentistry and Endodontics, Sri Ramachandra Faculty of Dental Science, Sri Ramachandra Institute of Higher Education and Research, Chennai, Tamil Nadu, India

³Department of Conservative Dentistry and Endodontics, Mamata Dental College and Hospital, Khammam, Telangana, India

⁴Department of Oral and Maxillofacial Surgery, Sri Venkateshwara Dental College, Ariyur, Puducherry, India

⁵Department of Conservative Dentistry and Endodontics, Sathyabama Dental College and Hospital, Chennai, Tamil Nadu, India

⁶Department of Conservative Dentistry and Endodontics, Adhiprasakthi Dental College and Hospital, Tamil Nadu Dr. MGR Medical University, Melmaruvathur, Tamil Nadu, India

Corresponding Author: Bharath Naga Reddy, Department of Conservative Dentistry and Endodontics, Adhiprasakthi Dental College and Hospital, Tamil Nadu Dr. MGR Medical University, Melmaruvathur, Tamil Nadu, India, Phone: +91 9444792260, e-mail: drbharathendo999@gmail.com

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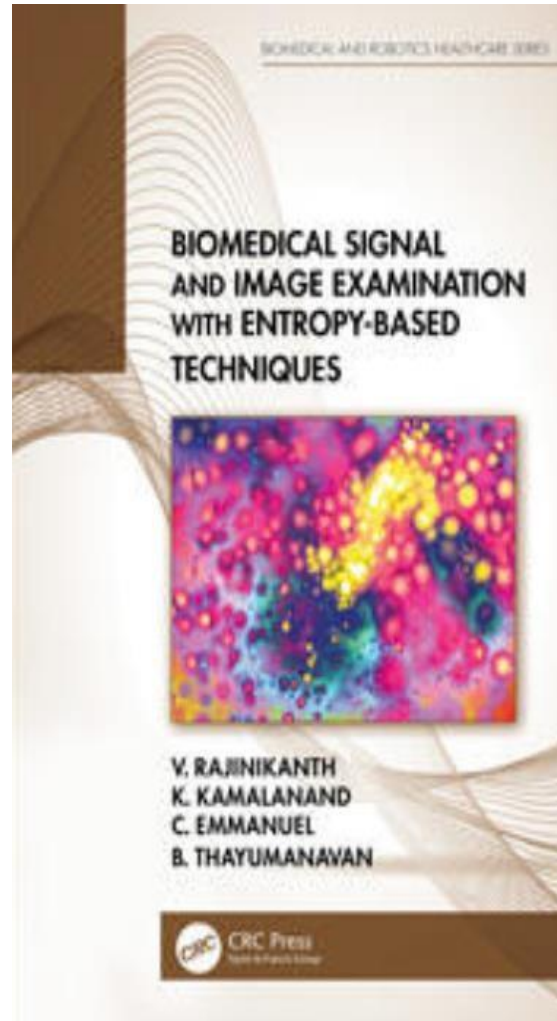


Table of Contents

1. Introduction to Entropy and Chaos. 2. Biosignals. 3. Need for Medical Imaging and Its Modalities. 4. Entropy Techniques in Image Analysis. 5. Case Studies with Medical Imaging

Author(s)

Biography

Dr. Venkatesan Rajinikanth is a Professor in Department of Electronics and Instrumentation Engineering at St. Joseph's College of Engineering, Tamilnadu, India.

Dr. K. Kamalanand is an Assistant Professor at the Department of Instrumentation Engineering, Madras Institute of Technology Campus, Anna University, Chennai, India.

Dr. C. Emmanuel is Professor and Director of the Department of Academics & Research, Gleneagles Global Health City, Chennai.

Dr. B. Thayumanavan is Professor and Dean of Sathyabama University Dental College and Hospital, Chennai, India.

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to me

Dear Dr.Aravinthan

This is pratheepa from SASTRA University. Slots are available and I

You can contact me on this number -9003689305

With Regards,
R.Pratheepa



sankar Aravinthan <aravinthan505@gmail.com>
to Pratheepa

Respected ma'am:

I have attached the key articles regarding my study using micro CT
Thank You.

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to me

Dear Aravinthan,

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of a µCT"

For this last point, I presume the name and company would be
Aravinthan Sanakr
Sathyabama Dental College and Hospital

Best regards,
David

ORIGINAL RESEARCH

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Knowledge, attitude, and challenges in digital learning using smartphones among dental students of South India: a cross-sectional survey

Gangadharamurthy Bhuvaneshwari¹, Krishnasamy Nitya², Maruthamuthu Karthikeyan³, Mohankumar Purushotham⁴, ShankarRao Amberkar Vikram⁵, Ananda Kumar Kirubakaran⁶,

¹ Oral Cancer Screening Vertical, Indian Cancer Society, Mumbai, Maharashtra, India

² Department of Oral and Maxillofacial Pathology, Adhiparasakthi Dental College & Hospital, Melmaruvathur, Tamil Nadu, India

³ Department of Dentistry, Shri Sathya Sai Medical College & Research Institute, Ammapettai, Nellikuppam Post, Tamil Nadu, India

⁴ Department of Conservative Dentistry & Endodontics, Sathyabama University Dental College & Hospital, Chennai, Tamil Nadu, India

⁵ Department of Oral and Maxillofacial Pathology, College of Dental Sciences, Davangere, Karnataka, India

⁶ Department of Prosthodontics, Crown & Bridge, Adhiparasakthi Dental College & Hospital, Melmaruvathur, Tamil Nadu, India

Correspondence Address:

Dr. Krishnasamy Nitya

Department of Oral and Maxillofacial Pathology, Adhiparasakthi Dental College & Hospital, Melmaruvathur 603319, Tamil Nadu, India

Abstract

Aim: Smartphones are a class of mobile phones with multipurpose facilities. They are being used for entertainment, shopping, and even educational purposes. Therefore, a study was planned to assess the knowledge, attitude, and challenges toward smartphone usage for digital learning among the dental students of South India. **Materials and Methods:** An observational cross-sectional web-based survey was conducted by using a structured, validated, 21-item questionnaire among dental students (final-year students, interns, and postgraduates) from seven random dental colleges in and around Chennai. The data about demographic status, the extent of smartphone utilization for knowledge, students' attitudes toward smartphone usage, and barriers in digital learning were collected. Chi-square test was applied. **Results:** In the present survey, 701 students have responded, predominantly females (80%). All participants owned a smartphone, and 62% of them had surfing time as more than 4 h. Nearly 94% had used smartphones for social network surfing. Almost 99% participants viewed instructional videos and read scientific articles using their smartphone. The most common site accessed for knowledge seeking was Google Scholar (39%), followed by Wikipedia (34%) and PubMed (20%). Forty-five percent of postgraduates felt that smartphones enabled them to study independently. Small screen (56%) of smartphones and less knowledge about the available resources (42%) were the major reported barriers for digital learning through the smartphone. **Conclusion:** Dental students used their smartphones for educational purpose and showed a favorable attitude toward their use in dentistry. Smaller screens, nonavailability of wireless access, and less awareness about the reliability of available resources were reported as barriers.