



## ABSTRACTS - Årsmøde 2016

### **Hit & Miss? The Diagnostic Quiz!**

Diagnostics are not always perceived as being as exciting or glamorous as therapeutics. While procedure or treatment codes have long and universally been used in dentistry for keeping patient records and for billing purposes, as far as diagnostic aids are concerned most dental insurance plans only value dental radiographies at best. Which probably accounts for the profuse shooting of radiographies of which a well-documented amount does not meet the technical standards and/or does not add any value to the diagnostic process. Bearing in mind that healthcare efficiency is the ratio of the output to the inputs of the system, technicalism/technologization has brought in another threat to our diagnostic efficiency. We are nowadays being bombarded with Cone Beam CT's in situations where endo-ice, perio-probe and tooth slooth could easily have solved the diagnostic enigma at a lower health and financial cost. In a diagnosis centered environment the systematic integration of elementary diagnostic steps will contribute to make fancy and expensive hi tech therapeutic interventions down the road obsolete.

The tissue responses mostly taking place in a hidden body compartment, the disease picture need to be made 'visible' by indirect methods and tests. The diagnostic quiz can sometimes be challenging but is most of the time a fascinating and rewarding game for those who know the rules.

### **Breaking news about cracked teeth:**

Lots of misconceptions about cracks in teeth and how to restore teeth to prevent them from breaking circulate. This presentation covers a classification of longitudinal cracks in teeth, which can be immediately translated into relevant therapeutic decisions. Given the fact that symptoms only appear in an advanced stage after serious damage to dentine, pulp, periodontium or bone will already have been caused, the presentation also addresses a method by which as yet symptom free teeth can be managed to prevent them from getting irreversibly damaged. This presentation also covers some urban legends like teeth weakened by the endodontic treatment, the need for posts, the emotional resistance against cusp coverage for the sake of tissue preservation etc.

### **CV:**

Jan Berghmans was born in Leuven, Belgium in 1960. He attended humanities high school class in ancient languages and literature at the St. Jan Berchmanscollege in Brussels and graduated magna cum laude from dental school (University of Brussels) in 1983. Jan is founder member and past president of the oldest endodontic society of Belgium, the Flemish Society of Endodontology (FSfE). He is certified member of the European Society of Endodontology (ESE) and served as country representative for Belgium at ESE and IFEA (International Federation of Endodontic Associations). He has been awarded with Honorary Membership of the Bulgarian Endodontic Society. While maintaining a private referral practice limited to endodontics in Brussels Jan Berghmans has been lecturing and teaching extensively both nationally and internationally. In 2013 Jan has been appointed chair of the ESE Corporate and PR committee. Jan Berghmans is guest teacher in the post graduate program of endodontology at the Faculdade de Medicina Dentária da Universidade de Lisboa. Founder of the multidisciplinary specialist referral dental care centre Megabite & Co in 2015.



## **Biofilms in endodontics**

After a brief overview of tissue response to shallow, medium and deep caries, the histological events that can be observed when pulp is penetrated by bacteria will be described. Necrosis and bacteria are initially confined to the pulp chamber, but soon pulp degeneration process extends beyond root canal orifices and moves slowly in apical direction, with or without clinical symptoms. In histologic sections, bacteria are often observed to form complex structures adhering to the root canal walls. These structures are known as “biofilms”. Bacterial biofilms can be observed in lateral canals and apical ramifications, and only their complete elimination will lead to endodontic success. Tissue biopsies from failed cases demonstrate how infection from the apical root canal walls or from complex anatomic intricacies can hardly be controlled through conventional treatment procedures. The presence of extraradicular bacteria and their possible role in determining root canal treatment failures will be discussed.

## **Wound healing of apical and periapical tissues following endodontic treatment**

Root canal instrumentation procedures produce a wound in the foraminal area. In teeth with the diagnosis of vital pulp this wound is placed in vital uninfamed connective tissue, while in teeth with the diagnosis of necrotic pulp the is placed in a severely inflamed or necrotic tissue. The purpose of this presentation is to evaluate the pulp healing process and the dentin-cementum complex in endodontically treated human teeth after long observation periods and to correlate histologic observations with conventional periapical radiographic findings. Contrary to a widely held opinion, apical tissue of properly treated teeth with no signs of periapical changes is only rarely significantly inflamed. When the tissue is inflamed, microbial causes can always be demonstrated. Narrowing of the apical root canal by cementum is a common finding in most cases, but a total closure is never observed.

### **CV:**

Domenico Ricucci, MD, DDS

Private Practitioner, Cetraro, Italy

Dr. Domenico Ricucci received his degree in General Medicine from “La Sapienza” University of Rome in 1982, and his DDS from the same University in 1985. Since then he has maintained private dental practices limited to endodontics. In addition to his private practice, Dr. Ricucci was Professor of Cariology at “Magna Graecia” University of Catanzaro, Italy in 2002 -2003. He served in the Research Committee of the European Society of Endodontology from 1999 to 2005.



Dr. Ricucci’s primary research interest relates to pulpal and periapical tissue reactions to caries and treatment procedures, biofilms in endodontic infections, pulp regeneration/revascularization. Since 1998 he has run his own histology laboratory and has developed considerable skills in hard tissue preparations for light microscopy.

Dr Ricucci has published 82 papers and has lectured both nationally and internationally. He has authored the Textbook and Atlas “Patologia e Clinica Endodontica”, the textbook and atlas “Endodontology. An integrated biological and clinical view”. He has also authored or co-authored eight book chapters.

## **BLACK HOLES - Radiographic diagnosis of periapical periodontitis using CBCT**

We all routinely use periapical radiographs to aid us with the management of periapical periodontitis (black holes), as well as to assess the outcome of endodontic treatment we carry out. However, radiographs have several limitations, which do have an impact on their overall diagnostic accuracy.

It is now well established that CBCT is a more accurate imaging system than periapical radiography.

This presentation will describe the results of the first series of prospective clinical studies assessing the impact of CBCT on the outcome of pulp capping, primary and secondary endodontic treatment carried out by the KCL research group.

## **PINK SPOTS - Diagnosis & management of external cervical resorption**

The majority of literature published on external cervical resorption (pink spots) is either a repetition of previous review papers or case (series) reports. It seems to me that not only is the nature of external cervical resorption poorly understood, but also is under-diagnosed and poorly managed.

The aim of this presentation is describe the nature, diagnose and management of external cervical resorption.

### **CV:**

Shanon Patel. BDS, MSc, MClintDent, FDS, MRD, PhD  
Consultant / Senior Lecturer in Endodontics.

I divide my time between working in a multi-disciplinary specialist practice in central London (4 days/week), and teaching future Specialist Endodontists in the Postgraduate Unit at Kings' College London (KCL) (1 day/week).

My PhD thesis assessed the use of CBCT in the management of Endodontic problems. I dabble in research, and have co-supervised over 30 Masters and PhD students.

My primary research interests reflect some of the interesting challenges I face in everyday clinical practice and include survival of teeth, root resorption, managing dental trauma, and the use of CBCT in Endodontics. As a result, I regularly lecture on these topics both nationally and internationally.

I have been the lead author of National and European (ESE) guidelines on dental imaging in endodontics, and have also published over 60 papers in peer reviewed scientific journals, co-edited 4 textbooks and written 10 book chapters.

