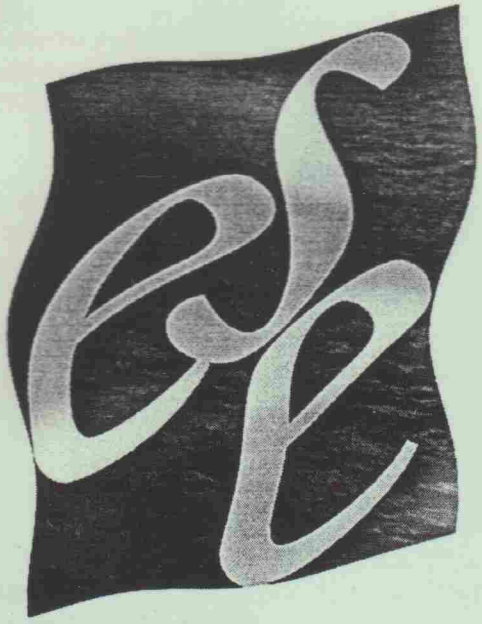

ABSTRACTS

The 8th biennial Congress European Society of Endodontology

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Session Ia (Microbiology)

P1 Seah YH, Gharbia SE, Andrews DMA, Gulabivala K, Shah HN
Eastman Dental Institute, London, UK.
The molecular basis of tetracycline resistance in root canal infections

Liberal usage of antimicrobial agents in the treatment of oral infections has resulted in an increase in antimicrobial resistance, including tetracycline, among oral micro-organisms. Tetracycline resistance is widespread among the normal and pathogenic microbial flora. It has been suggested that commensal and environmental bacteria act as reservoirs for the tetracycline-resistance genes. Due to the immense opportunity for genetic exchange between bacteria, it is possible for both commensal and environmental bacteria to pass their tetracycline resistance to endodontopathic bacteria. The role of tetracycline-resistant bacteria in root canal systems should be considered, but to date no information is available. The aims of this study were to isolate tetracycline-resistant endodontopathic bacteria by conventional cultivation methods and determine their minimum inhibitory concentrations (MICs). Experiments were also carried out to determine the nature and class of tetracycline resistance by molecular methods and to compare their effectiveness with traditional culture methods. Of the root canal samples tested tetracycline-resistance genes were present in 43% of samples, even though most of the patients had no established history of tetracycline therapy. Tetracycline-resistance genes were chromosomally mediated and localized within transposable elements. The presence of uncharacterized tetracycline (Tet) determinants other than TetM and TetO, together with differences in MICs between similar strains suggests differences in mechanisms for tetracycline resistance among these micro-organisms.

P2 Prpic-Mehicic G, Buntak-Kobler D, Oreskovic K, Tomas M.
School of Dentistry, University of Zagreb and Pliva Pharmaceuticals Division, Zagreb, Croatia.
Azithromycin versus Amoxicillin/Clavulanate in the treatment of odontogenic infections

An open comparative study was undertaken to compare the efficacy and safety of Azithromycin and Amoxicillin/Clavulanate in the treatment of odontogenic infections. Adult patients of both sexes with acute or exacerbating apical periodontitis, who gave their informed consent, were randomized to receive Azithromycin (Sumamed, Pliva, Croatia), 500 mg once daily for 3 days, or Amoxicillin/Clavulanate (Klavocin, Pliva), 625 mg every 8 h for 5 days. Clinical evaluation (dental pain, swelling, exudation, regional lymphadenopathy, trismus, fever) was performed before, and 3, 5 and 10 days after initiation of treatment. Cure was defined as complete disappearance of signs and symptoms of acute infection within 5 days of initiating treatment. Thirty-eight patients, aged 21-77 years, have been included (17 in Azithromycin, and 21 in Amoxicillin/Clavulanate group). Treatment groups were comparable with respect to demographic and case history data. Cure was achieved in 15/16 Azithromycin treated patients (one patient excluded from evaluation due to treatment discontinuation caused by diarrhoea), and in all patients receiving Amoxicillin/Clavulanate. Besides the patient with diarrhoea, mild side effects (nausea and vaginitis) were observed in two patients receiving Azithromycin. These preliminary results indicate that in the treatment of odontogenic infections a 3-day Azithromycin course may be as effective as a 5-day Amoxicillin/Clavulanate course.

P3 Shah HN, Sammaraiee O, Gharbia SE, Andrews DMA, Gulabivala K, Wren M
Eastman Dental Institute and University College Hospital, London, UK.
The prevalence of F. nucleatum subspecies and F. necrophorum in the root canal.