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## **POSTER PRESENTATIONS ON FREELY CHOSEN SUBJECTS**

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## POSTER PRESENTATIONS ON FREELY CHOSEN SUBJECTS

Friday 25th September 10.00 – 10.45

### 39 Prevalence of Apical Periodontitis and the quality of root canal treatment in an adult population of Riga.

Jersa I, Kundzina R, Albina M. Riga Stradins University, Riga, Latvia.

AIM: To investigate prevalence of apical periodontitis and the quality of root canal treatment in association with apical periodontitis in a selected group of 35-44 year old Latvians.

METHODOLOGY: Panoramic radiographs of Latvian adults aged between 35 and 44 years attending a private dental clinic for the first time during the period of 2004 - 2008 were selected. In total, 312 out of 1248 panoramic radiographs were selected randomly and examined for periapical status and endodontic treatment quality. The technical quality of root fillings was evaluated in terms of length in relation to the root apex and lateral adaptation to the canal wall. The periapical status was assessed using the PAI index. Before commencing the study the examiner was calibrated. The data were analysed using the SPSS 14 computer software programme. The results were analysed statistically using the chi-squared test and odds ratio.

RESULTS: In total 7490 teeth were examined, but 425 teeth could not be assessed because of low quality radiographs. Out of the 312 cases examined 72% (224) had teeth with apical periodontitis. Of the 7065 examined teeth 18% (1255) were endodontically treated. Apical periodontitis was found in 7% (474) of all teeth and 31% (384) of the endodontically treated teeth. Of endodontically treated teeth 23% had adequate root filling quality, 27% were judged to be inadequately root filled with apical periodontitis but 50% teeth had an inadequate filling with normal periapical tissues (OR=0, 4). Root filled teeth with complete filling had apical periodontitis in 11% (42) of cases, incomplete in the apical region in 12% (44) teeth but with inadequate lateral seal in 15% (59). Root fillings which were inadequate in density and short of the apex were more often associated with apical periodontitis: 55% (211) teeth.

CONCLUSION: The prevalence of apical periodontitis was high (72%). Despite inadequate root filling quality only 1/3 of teeth had apical periodontitis.

### 40 Periapical health of Croatian populations during the Late Antique / Early Middle Ages transition.

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AIM: Historical data indicate that the transition from the Late Antique (LA) to the Early Medieval (EM) period had a detrimental effect on the health of populations living in the area of what is now Croatia. The purpose of this study was to analyze periapical health at the transition from the LA (3-5 centuries AD) to the EM (6-10 centuries AD) period in Croatia.

METHODOLOGY: The osteological material analyzed in this study was divided into two composite skeletal series originating from 11 sites located in continental Croatia, and along the eastern Adriatic coast. The LA series consisted of 193 skeletons and the EM series of 321 skeletons. Periapical lesions were diagnosed macroscopically; their frequency, size and localization was registered.

RESULTS: Adult frequencies range from 8.8% in the LA series to 20.1% in the EM series. There was a significant difference in the frequencies of the periapical lesions between the LA and EM series ( $\chi^2=4.27$ ,  $df=1$ ,  $p<0.05$ ). In both series, males exhibit higher frequencies than females, but there was no statistical significant difference. Periapical lesions in the subadult population (<15 years) were not found. The most affected tooth was the first molar both in the maxilla (17.0%) and mandible (28.0%). In the LA series 27.8% of the lesions were smaller than 3mm in diameter, 69.4% were between 3 and 7mm, and 2.8% larger than 7mm. In the EM series 23.4% of the lesions were smaller than 3mm, 56.3% were between 3 and 7mm, and 20.3% larger than 7mm. 93.0% of the lesions were apical lesions and 7.0% were lateral defects.

CONCLUSION: EM series show significant higher frequencies of periapical lesions and larger dimensions of the defects. Exacerbation of periapical and oral health status confirms historical data about deterioration of living conditions during the EM period.

### 41 Evaluation of RCT case complexity on dental undergraduate clinics using a modified case assessment form.

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AIM: To quantify the appropriateness of root canal treatment (RCT) referrals to dental undergraduate clinics using criteria set out in a modified and abbreviated version of the American Association of Endodontology's Case Difficulty Assessment Form, designated as the Glasgow Assessment Proforma for Endodontics (GAPE).

METHODOLOGY: Case records and radiographs of 130 patients internally referred within Glasgow Dental Hospital for RCT on undergraduate clinics, prior to the introduction of GAPE, were audited. A GAPE proforma was completed for each patient by a Senior House Officer (SHO), who had received training in its use. Case complexity was assessed for each patient and the appropriateness of RCT referrals to undergraduate clinics by staff of varying levels of clinical experience determined. Data was analysed using Microsoft Excel.

RESULTS: Referrals for RCT on undergraduate clinics were made by 19 individual clinicians. 75% of referrals were from Restorative Consultants, 2% from Specialist Registrars (SpRs), 8% from SHOs and 15% from other staff. In total, 13% (consisting of 88% by Consultants; 6% SHOs; 6% other sources) of referrals to BDS5 senior undergraduate clinics were defined as being too complex for senior dental students according to GAPE criteria. Furthermore, 64% (81% by Consultants; 2% SpRs; 12% SHOs; 5% other sources) of these referred cases were deemed as too advanced if they were to be treated on BDS3 or BDS4 student clinics.

CONCLUSIONS: The adoption of a modified case difficulty assessment form, GAPE, should be considered for use when assessing the suitability of patients requiring RCT for undergraduate treatment. This proforma should help minimise inappropriate complex RCT referrals to undergraduates, allowing them to develop the key skills required to comply with the GDC document 'The First Five Years'.