Identification of Micro-organisms Isolated in Root Canals Associated with Periapical Lesion

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Objectives: To isolate and identify types of micro-organisms present in the asymptomatic untreated root canal associated with periapical lesion via cultivation on selected medium agar. Methods: Using an aseptic technique, 10 samples were obtained from 8 patients. The access cavity was prepared using sterile burs. Decontamination procedures were repeated. Length of canals were determined with apex locator. The wet canals were gently files with Flexo-files 10 to release debris. The canals were sampled with paper points and placed in 1 ml RTF vials. Samples were diluted and plated on anaerobe agar plates with 5% blood. Plates were placed in anaerobic jar and incubated for 10 days: Colonies were subcultured for purity. Isolates were identified using Gram staining, standard biochemicals standard and API identification system (Bio Merieux). Results: Bacteria were recovered in 9 canals however only from 8 canals the colonies could be subcultured. All the bacteria isolated and identified were anaerobic bacteria. Types of bacteria found were 40% Peptostreptococcus species (4/10 canals), 40% Prevotella species (4/10), 50% Actinomycyes species (5/10) and 20% Porphyromonas species (2/10). Most of the canals (7/10) isolated 2 types of bacteria. Conclusion: The micro-organism found in the canal are Peptostreptococcus, Prevotella, Actinomycyes and Porphyromonas species.

This study was supported by Vot F-0377/2005B. Ethical : DF RD0501/0001(L)