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CLONAL ANALYSIS OF THE MICROFLORA OF INFECTED ROOT CANALS ASSOCIATED WITH ENDODONTIC ABSCESSSES

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The aim of this study was to examine the diversity of bacterial species in infected root canals of teeth associated with endodontic abscesses by cloning and sequencing techniques. Samples collected from five infected root canals were subjected to PCR with universal 16S rDNA primers. Products of these PCRs were cloned and sequenced. All samples were positive for the presence of bacteria and a range of 7-13 different bacteria were found per root canal sample. A total of 48 different oral clones were detected among the five root canal samples. *Olsenella profusa* was the only species present in all samples. *Porphyromonas gingivalis*, *Dialister pneumosintes*, *Dialister invisus*, *Lachnospiraceae* oral clone, *Staphylococcus aureus*, *Pseudoramibacter alactolyticus*, *Parvimonas micra* and *Enterococcus faecalis* were found in 2 of 5 samples. Majority of the taxa were present in only one sample, for example *Tannerella forsythia*, *Shuttleworthia satelles* and *Filifactor alocis*. Some facultative anaerobes that are frequently isolated from endodontic infections such as *E. faecalis*, *S. anginosus* and *Lactobacillus* spp. were also found in this study. In conclusion, clonal analysis of the microflora associated with endodontic infections revealed a wide diversity of oral species.

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