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Analisa urutan gen 16S rRNA dari bakteri oral yang tidak dikenal

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Abstrak

The purpose of this study was to identify five unknown bacterial strains by using 16S rRNA gene sequencing. These strains isolated from endodontic lesions and periodontal pocket are culture-difficult and inert in most biochemical test and could not be classified to any established bacterial species by conventional bacteriological method. In the present study, genomic DNA was extracted from the cultured bacterial cells with InstaGene (BIO-RAD), and the 16S rRNA gene was amplified by PCR with universal primers (27F and 1492R) and Premix Taq (Ex Taq version, Takara), then was sequenced by using a Thermo Sequenase Fluorescent Labelled Primer Cycle Sequencing Kit (Amersham) and an ALFexpress DNA sequencer (pharmacia LKB). The segmented nucleotide sequences of 16S rDNA were integrated by using SEQMAN in LASERGENE computer program (DNASTAR). The 16S rDNA sequences of the unknown bacterial strain were applied to GenBank by using BLAST program to search the suspected bacterial species. The MEGALIGN search program showed that the sequence similarities were 89.5%-91.3% to a type strain of Dialister pneumosintes among the established bacterial species. Based on the phylogenetic data, it is considered that the five unknown strains have to be presented a new bacterial species as Dialister-like bacterium.