

ABSTRACT

STRAIN OF *S. MUTANS* BETWEEN MOTHER AND CHILDREN UNDER FIVE YEARS OLD USING RESTRICTION ENDONUCLEASE ANALYSIS

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The objective of the study was to examine the similarity of mutans streptococci between mothers and children. An observational study has been carried out. The sample of the study were 10 pairs of mothers and children under five years old of Al Hidayah kindergarten in Surabaya. The method of the study included isolation of strain, the preparation of chromosomal DNA, digestion and electrophoresis. Data was analyzed by comparing band between mothers and children under five years old. The result of the study concluded that there was no similarity of *S. mutans* strain between mothers and children. It showed that transmission of *S. mutans* could derive from father and other people. By knowing the source of *S. mutans* infection, it could help the effort to prevent or delay the transmission of *S. mutans*. If so, it would reduce the risk of caries at children. The condition of children's oral cavity and children environment also contributed to the acceleration of *S. mutans* transmission.

Keywords : *S. mutans*, DNA fingerprint, transmission.