THE ROLE OF GREEN TEA CATECHIN TOOTH PASTE TO BONE MORPHOGENETIK -2 (BMP-2) IN PATIENTS EARLY CHILDHOOD CARIES

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ABSTRACT

Dental caries is an infectious disease that most commonly occurs in children. Dental caries in childhood, often called Early Childhood caries (ECC) is a health problem prevalence is highest. ECC is also known as the milk bottle caries is a syndrome of severe tooth decay, expanding rapidly and cause health problems long in children.

This research aims to make green tea polyphenols in the form of toothpaste to facilitate its use in society, especially in children with ECC. Further examination will be conducted Bone morphogenetic -2 (BMP-2) to investigate whether the toothpaste green tea catechins can be used as a topical treatment in the teeth of children who work for the formation of tertiary dentin, so that the dental pulp will be maintained without restoration actions. This research is an experimental research design with pre and post design with control group, which carried out the manufacture of toothpaste green tea catechins accompanied by minimum inhibitory test against the bacteria Streptococcus mutans and find the most optimal barriers. Furthermore, the study of patients with the disease Early Childhood caries (ECC) is treated with care the use of toothpaste Green Tea Polyphenols and measurement components include measurement of the levels of BMP-2 before and after treatment.

The results showed increased levels of BMP-2 after toothbrush using toothpaste green tea catechins in the first 5 minutes there was an increase, and on 10 minutes a decline. Test results in the first 5 minutes after the use of toothpaste green tea catechins, BMP-2 P> 0.05 (0.705), 5 minutes or 10 minutes after the 2nd treatment test results BMP-2 P> 0.05 (0.600). Picture obtained from this study is that although the results are not significant, but it can be concluded that green tea catechins toothpaste is a natural ingredient that is more effective and safer to stop the progressive caries, particularly in children with ECC.

Keywords: Early Childhood caries, BMP-2, Toothpaste green tea catechins.