

DENTAL EDUCATION

April 09-10, 2018 | Amsterdam, Netherlands

The role of Dangke (local dairy product in indonesia) as a cariostatic diet in reducing streptococcal numbers in dental plaque

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Objective: Dairy products were proven to prevent caries because their cariostatic properties inhibit the attachment of cariogenic bacteria such as Streptococcus that accumulates on dental plaque. Dangke is a typical dairy product from Enrekang, South Sulawesi and Indonesia which is traditionally processed and derived from cow's milk coagulation using coagulant from sap of papaya (papain enzyme). Dangke with high protein content that reached 17.20% is considered to be one of non-cariogenic food. The aim of this study was to assess the role of Dangke to reduce Streptococcal numbers in dental plaque.

Design & Methods: This study was a quasi experimental study with post-test including only control group design. It was performed in 15 subjects who met the inclusion criteria with simple random sampling method. The study group consisted of Dangke as treatment group and cheddar cheese as control group. The plaque samples were taken twice in each group: directly after (T1) and two hours after the consumption of dairy products (T2), thus obtained 30 samples of plaque in each group. Evaluation of the amount of Streptococcus was done in the Microbiology Laboratory, Faculty of Medicine, Hasanuddin University.

Results: The mean colonies of Streptococcus in Dangke and cheddar cheese group on T₁ were 19.44, 31.56 CFU/ml respectively, and T₂ were 2.44, 27.56 CFU/ml respectively, with p-value in Dangke group was $p=0.028$ while in cheddar cheese group was $p=0.746$.

Conclusion: Dangke was effective to reduce Streptococcal numbers in dental plaque.

Biography

Ridhayani Hatta has completed her Bachelor at the age of 23 years from Hasanuddin University, Indonesia. Currently, she is conducting her master study in School of Clinical Dentistry, The University of Sheffield. She is a general practitioner in Makassar, South Sulawesi and a young researcher in Hasanuddin University, Indonesia.

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