

Effect of Gargling Green Tea (*Camellia Sinensis*) in Reducing Plaque Index in Elderly with Systemic Disease

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Abstract. Background: Dental and oral health is one of the problems that are often experienced in the health sector. According to WHO, the prevalence of periodontal disease in the elderly with a Community Periodontal Index (CPI) score of three or more is 45%. Periodontal disease is also associated with various systemic diseases, such as diabetes mellitus, hypertension and coronary heart disease (CHD). The source of periodontal disease is due to neglect of dental and oral hygiene so that plaque buildup occurs. The best known preventive effort to reduce plaque besides brushing teeth is gargling. Mouthwash on the market contains antiseptic ingredients that are specially made through a laboratory process. Various side effects caused by the use of chemicals in mouthwash are quite numerous and significant so that other alternatives are needed as raw materials for making mouthwash with minimal side effects, economical and efficacious. Alternatives that meet these requirements are ingredients from herbs and one of them is green tea. Objective: To compare the plaque index after gargling green tea in the elderly with systemic disease. Materials and Methods: This study used a quasi-experimental method in the form of pre-test post-test group design research and purposive sampling. The statistical test used is the Mann-Whitney U Test. The sample in this study consisted of 54 samples. Results: Based on the results of the Mann-Whitney U Test showed that between before and after gargling green tea solution there was a significant decrease in plaque index ($p = 0.000$). Based on the Mann-Whitney U Test, there was no significant difference between green tea and chlorhexidine ($p=0.965$). Conclusion: Green tea can reduce plaque index in the elderly with systemic disease

Keyword: green tea, plaque, elderly, systemic diseases.