

ABSTRACT

Gingivitis is a reversible gingival inflammation. The main etiology of gingivitis arises from the accumulation of dental plaque. Accumulation of plaque and gingival status can be assessed using plaque index (PI) and gingival index (GI). Pineapple peel (*Ananas comosus L.*) is one of the natural ingredient that contains enzym bromelain and flavonoid as an antibacterial and antiinflammation substances. This study aims to determine the effect of gargling 6,25% pineapple peel extract solution on plaque accumulation and gingival status in moderate gingivitis patients.

Twenty subject aged 19-24 years old with moderate gingivitis according to Løe and Silness were randomly divided into treatment and control groups, 10 people gargled 6,25% pineapple peel extract solution and 10 people gargled 0,1% chlorhexidine mouthwash for 5 consecutive days. Subject examined PI values using O'Leary index and GI values using Løe and Silness index on day 0 and 6. The data obtained were analyzed using *Mann Whitney* ($p \leq 0,05$).

The results showed the decrease of value of PI and GI after gargling in both groups. The results of *Mann Whitney* analysis showed that significant differences in PI and GI values gargled 6,25% pineapple peel extract solution compared with 0,1% chlorhexidine. The conclusion of this study is that gargling with 6,25% pineapple peel extract solution is more effective in reducing plaque accumulation and gingival status compared to 0,1% chlorhexidine in moderate gingivitis patients.

Keywords: gingivitis, pineapple peel extract, gargling, PI and GI values