

The Effectiveness of Gargling Ajwa Dates Extract (Phoenix Dactylifera) Against Decreasing Plaque Index of Fixed Orthodontic Users

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Abstract. Users of fixed orthodontic appliances have an increased risk of plaque which can lead to susceptibility to caries and periodontal disease. One way to control the amount of plaque is by gargling. Ajwa dates have been shown to contain high levels of flavonoids that play a role in fighting pathogenic bacteria. This study aims to determine the effectiveness of gargling with ajwa date extract (phoenix dactylifera) on reducing plaque index in fixed orthodontic users. The design of this study was a quasi-experimental with a pre-posttest design with a control group design. The research subjects were 30 students of the Faculty of Dentistry, Muslim University of Indonesia, class of 2020-2021, with purposive sampling using the sampling method. Each subject was divided into 2 groups. Group 1 rinsed using ajwa dates (phoenix dactylifera) and group 2 (control) using mineral water. Data were analyzed using paired t-test and independent t-test. The results showed a significant decrease in plaque index after gargling with ajwa (phoenix dactylifera) date extract ($p < 0.05$). The conclusion of this research is that gargling with ajwa date extract (phoenix dactylifera) can reduce dental plaque index.

Keyword: plaque index, ajwa dates, orthodontics