ABSTRACT

Background: Fixed orthodontic treatment can cause the imbalance of oral cavity. Plaque begins to retain on teeth surface around the bracket. This will then lead to the inflammatory response of the periodontal tissue. Mentalis muscle hyperactivity is a phenomenon found in the oral cavity in which there is excessive contraction of the lower lip, thus will enhance the severity of periodontal inflammation caused by fixed orthodontic appliances. An adequate plaque control is necessary to maintain oral health. Toothpick Tooth Brushing Method is a new method of tooth brushing that can stimulate the secretion of Immunoglobulin A that can reduce the inflammatory process. Objectives: The aim of this study was to assess the changing of the gingival index and plaque index score of toothpick tooth brushing method upon fixed appliances users with mentalis muscle hyperactivity. Methods: After examined for gingival index and plaque index score, control group was taught the standard tooth brushing method and the treatment group was taught the toothpick tooth brushing method. 4 weeks after the first examination, final examination is conducted. Results: Treatment group shows significant difference on gingival index (GI) score (p=0.001), but not on plaque index (PlI) score (p=0.744) compare to the standard tooth brushing method group. Conclusion: Toothpick tooth brushing method can reduce gingival index score, but cannot reduce plaque index score in fixed orthodontic patients with mentalis muscle hyperactivity.

Keywords: fixed orthodontic patients, mentalis muscle hyperactivity, toothpick tooth brushing method