

**PASTA GIGI ANTIBAKTERI DARI TANAMAN GAMBIR (*Uncaria gambir* Roxb) SEBAGAI PENGHAMBAT PERTUMBUHAN PLAK PADA PEMAKAI PERANTI ORTODONTI CEKAT**

**(THE ANTIBACTERIAL TOOTHPASTE MADE FROM GAMBIR (*Uncaria gambir* Roxb) TO INHIBIT THE GROWTH OF DENTAL PLAQUE IN FIXED ORTHODONTIC PATIENTS)**

**ABSTRACT**

**Background:** Oral hygiene is more difficult for orthodontic patients compared with individuals with normal dentition. Fixed orthodontic appliances cause a rapid increase of dental plaque volume due to the components of fixed orthodontic appliances. The addition of gambir extract in toothpaste is expected to inhibit the growth of dental plaque. **Purpose:** The purpose of this study was to know that the antibacterial toothpaste made from gambir to inhibit the growth of dental plaque in fixed orthodontic patients. **Method:** This research was done in Faculty of Dentistry students, aged 18-24 years, have been wearing fixed orthodontic appliances 1-2 years. They were instructed to brush using bass method. At first they brushed using placebo toothpaste and the second with gambir extract toothpaste. The score was taken 4 hours after brushing. Plaque was scored with Orthodontic Plaque Index (OPI). The statistical analysis was done by using paired T-test. **Result:** The average of dental plaque score after brushed with placebo and gambir extract toothpaste were 41.51 and 24.11. The paired T-test showed that dental plaque after brushing with the placebo and gambir extract toothpaste had  $p \text{ value} = 0.000 < \alpha = 0.005$ . It meant that there was significantly difference in plaque after tooth brushing with placebo and gambir extract toothpaste. **Conclusion:** Toothpaste containing gambir extract can reduce the dental plaque in fixed orthodontic patients.

**Keywords:** Gambir extract toothpaste, dental plaque, fixed orthodontic patients.