

## **EFFECT OF BABUL AND ALUM ON SALIVARY FLOW AND ORAL BACTERIAL GROWTH**

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### **ABSTRACT**

**OBJECTIVES:** Compare the effect of Babul and Alum on salivary flow, and saliva micro-organisms.

**MATERIALS:** Ninety volunteers, 20-50 years of age were recruited. They were divided into 3 groups. Mouthwashes used- 25 aqueous Babul solution, 6.2 aqueous Alum solution, or distilled water. Unstimulated and stimulated saliva were collected for five minutes. The first change to visit one sample was a base line. Then after one week (visit 2). Each subject was given 15 ml of randomized assigned mouthwash to rinse for one minute daily, then measurements were done after 2 and 4 weeks (visits 3,4). Count of Streptococcus mutans and Lactobacilli were performed.

**RESULTS:** Results showed that unstimulated saliva in visit one had significantly higher mean values than visit 3 and visit 4 ( $p < 0.05$ ). However, mean stimulated saliva in visit 2 was significantly lower than visit 3 and visit 4 ( $p < 0.05$ ). There was an observable difference in the count of Streptococcus mutans. The number of cases with high count was reduced in final assessment to zero, while subjects with low count increased similarly relative to one use of Babul mouthwash. Although there were no significant differences among count of Lactobacillus, both mouthwashes showed a progressive decrease in the subjects with high bacterial count of Lactobacillus.

**CONCLUSIONS:** Babul and Alum reduced salivary flow rate after the repeated use, which could be used in moisture control for dental procedures. Both mouthwashes had antibacterial effect against Streptococcus mutans and Lactobacilli indicating the promising use of these natural substances as antibacterial compounds.

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