Randomized Double Blind Clinical Study for Plaque, Calculus, and Gingivitis Indices After Using Natural Mouthwashes

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Dearth of information is available about mouthwashes extracted from natural plants. To evaluate the effects of two mouthwashes: Babul and Alum: on plaque, calculus and gingival indices in healthy volunteers, three mouthwashes were used: Control group (distilled water); 6.25% Alum solution; and 25% Babul solution. Ninety Volunteers were randomly assigned so one of the three groups. Subjects began rinsing with 15ml of the same mouthwash assigned for one minute once daily for four weeks. Plaque, calculus and gingival indices were measured as follows: Beginning of the study (visit 1), one week (visit 2) two weeks (visit 3), four weeks (visit 4). Two-way ANOVA of Repeated Measure Design was used to compare plaque, calculus-, and gingivitis indices of the visits. There was no significant difference between the mouthwashes (p=0.40!). However, there were significant differences between the visits. Mean plaque value of visit one was significantly higher from the other successive visits (p<0.001). In both Babul and Alum, visit 2 was significantly higher than visit 4. The mean, calculus value of visit 1 was significantly higher from visit 2, visit 3 and visit 4. Mean calculus value of visit 2 was significantly lower from visit 1 for control group, and visit 2 and visit 3 were significantly lower than visit 4 for Alum group Babul had no significantly differences among visit 2 to visit 4. For gingivitis index, each mouthwash indicates that visit 1 was significantly higher (p<0.0001). However, only visit 2 significantly higher from visit 3 and visit 4 far Babul and visit 2 was significantly different from visit 4 for control group. About 15% of the subjects have indicated some discomfort and 6% felt dryness after using these mouthwashes. Immediate and cumulative antiplaque effects were observed for both test mouthwashes Moreover, there was reduction of gingivitis in 3rd visit after the use of Babul indicating a therapeutic effect of this mouthwash.