

Effectiveness of Green tea (*Camellia sinensis*) mouth rinse on wound healing after gingivectomy

ABSTRACT

Background: Green tea or *Camellia sinensis* is regarded as healthy drink as it contains polyphenols especially catechins which possess antioxidative, antimicrobial, anti-inflammatory, and angiogenic effects for healthy periodontium.

Aim: To examine the effectiveness of green tea (*Camellia sinensis*) mouth rinse on wound healing after gingivectomy

Methods and Materials: Double-blind randomized controlled clinical trial was conducted among 36 participants with non-inflammatory gingival enlargement in the age group of 30-55 years who were randomly allocated with block randomization (18 participants in each group) for study (5 %green tea mouth rinse) and control group (0.12% of chlorhexidine mouth rinse). Wound healing was examined by plaque index (PI), gingival index (GI) and bleeding on probing (BOP) before surgery and after 2nd week and 4th week of gingivectomy.

Results: Significant difference in plaque score (p value > 0.05) between two groups at 2nd week and 4th week after gingivectomy was not detected whereas GI mean score showed a decline in both groups at 4th week, indicating statistical difference between groups at 4th week (p value < 0.05) in which GI score of the control group is more decreased than study group. Similarly, the mean BOP scores in both groups showed no statistical significance (p value > 0.05) between study and control groups at 2nd and 4th week.

Conclusion: This study indicated that green tea mouthwash has comparable efficacy to chlorhexidine mouthwash on wound healing after gingivectomy.

Clinical significance: Green tea mouthwash could be employed as a cost-effective, long-term used herbal mouthwash with anti-plaque and anti-inflammatory properties and no obvious side effects as opposed to chlorhexidine mouthwash after surgical procedures.

Key-words: Green tea, Antibacterial; Periodontal wound healing; Gingivectomy