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**Clinical evaluation of the effect of Coconut oil and Sesame oil using microneedling therapy on severity of Gingival inflammation and plaque accumulation****Diana Mostafa***Vision Colleges, Saudi Arabia*

**Introduction:** Gingivitis is a form of a periodontal disease, characterized by gingival redness, edema and bleeding .It is treated by mechanical plaque control combined with chemical plaque control measures. it can be progress to a more destructive form of periodontal disease, when left untreated. However, oil pulling is a traditionally Indian practice which has shown effectiveness in dental and systemic conditions.[1] Among different oils have been used for oil pulling practice, coconut oil and sesame oils are unique in their composition which have proven anti- inflammatory and antimicrobial effects. [2] Despite their healing advantages, the studies on oil pulling using coconut and sesame oils are very limited. In our research, we studied the effect of these oils using microneedling technique on gingival inflammation and plaque accumulation among patients with gingivitis.

**Aim:** This study aimed to assess and compare the efficacy of oil pulling practice using coconut oil and sesame oil adjunctive to the microneedling therapy in the reduction of gingival inflammation and plaque accumulation in gingivitis diagnosed patients.

**Material and method:** 21 patients with clinical diagnosed plaque induced gingivitis of both genders were selected randomly from AlFarabi hospital, Riyadh, KSA. They were divided into 3 groups as following Group A; seven participants were treated with topical coconut oil using dermapen, Group B; seven participants were treated with topical sesame oil using dermapen, while Group C; seven patients received periodontal mechanical treatment only. Postintervention gingival status and plaque status for all the group participants were assessed using modified GI and PI at the 1st, 2nd and 3rd week to Compare the changes and difference between groups.

**Results:** Group A and B showed highly statically significant reduction in gingival and plaque indices while group C displayed reduction scores but not significant.

**Conclusion:** Using oils with microneedling technique could be considered as a treatment modality of decreasing the persisting gingival inflammation and plaque accumulation. We concluded that sesame oil applied with Dermapen is the most effective technique on improving the gingival status and decrease the inflammation.

**Biography**

Diana Mostafa currently works at the preventive dental sciences, Al Farabi Colleges as a lecturer and course director of periodontology courses. Diana does research in Clinical Periodontics, Oral Medicine , Clinical Psychology and Behavioural Science. Their current project is 'smile perception among patients, dental students and dental clinicians.