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RELATIONSHIP BETWEEN VITAMIN D DEFICIENCY AND CHRONIC PERIODONTITIS

Abstract.

Background: Vitamin D deficiency may be associated with increased risk of chronic periodontitis.

Aims: To clarify the relationship between vitamin D deficiency and Chronic periodontitis and to evaluate the effect of vitamin D on periodontal index. **Material and Method:** The investigation was carried out on 45 participants of ages within the range of (30-45 years) who were attending the private dental clinics. Diagnosis of chronic periodontitis was established depending on dental history, clinical examinations (periodontal indices). All participants were examined by the same dentist. They were classified into three groups: Group 1 (control negative): (15) participants with normal serum vitamin D3 level and with pocket depth ≤ 3 mm, good oral health and normal periodontal tissues and no previous history of periodontal diseases. Group 2 (control positive): (15) participants with normal serum vitamin D3 level and periodontitis with pocket depth ≥ 5 mm, they received placebo medication orally, Group3(treatment): (15) participants with vitamin D3 deficiency (below 30 IU), and periodontitis with pocket depth ≥ 5 mm, they received oral Vitamin D3 fast acting liquid soft gel capsule 2000 IU /day for 3 months. Serum Vitamin D level was measured before and after the study, 3 blood samples were taken from each participant at 0,45,90 days, for research examinations. The criteria of patients' selection include apparently looked healthy individuals, nonpregnant or lactating females. Vitamin D deficiency group (below 30 IU), there was no history of vitamin D allergy and did not take any medication or supplements or herbals for the last 1month, non-smoking, and non-alcoholic. Deep scaling and root planning were done for every participant in all groups (except control negative) to reach the base line for periodontal index. A written instruction was supplied to each patient about standard oral hygiene home care. After one week, the periodontal indices and radiographical examination was measured for all participants with blood collection and after 45,90 days. Vitamin D level measured before and after research steps.