

The Evaluation of the Relationship between the Metabolic Syndrome and Periodontal Disease in the Patients Referring to Imam Khomeini Hospital in Ardabil in 2018 and 2019.

Abstract

BACKGROUND&OBJECTIVE: Metabolic syndrome (MetS) is a common chronic condition that increases the cardiovascular disease risk and is also linked to periodontitis. The study aim was to determine if an association exists between periodontal disease severity, parameters and metabolic syndrome (MetS) in a group of northwestern Iranian patients.

METHODS: A total of 100 participants (50 males and 50 females, age range 25- 78 years) including 50 patients with MetS and 50 participants without MetS were selected for this study. Information on sociodemographic characteristics, dental behaviours and smoking status was collected from a self- administrated questionnaire. Periodontal status including pocket depth (PD), clinical attachment level (CAL) and bleeding on probing (BOP) as well as number of missing teeth was recorded. The Independent sample t test were used to evaluate the differences between periodontal disease parameters and MetS between the 2 groups.

RESULTS: CAL, BOP and missing teeth were significantly higher in the MetS group than in the control group and was significantly increased by a number of MetS components. PD did not change between two group. The severity of periodontal disease, as measured by average PD and average CAL was significantly greater among patients with MetS compared to those without MetS. Patients with dyslipidemia, hypertension and central obesity without dysglycemia have CAL, BOP and missing teeth higher than control group ($P < .05$).

CONCLUSION: Much severe periodontal disease was found in MetS participants and increased with number of MetS components. Participants with MetS had higher periodontal parameters (except PD). Also with eliminating of diabetic patients, results did not change.

KEYWORDS: Metabolic syndrome, periodontal diseases, diabetes