Assessment of relationship between Human body composition and periodontal status

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Abstract

Background and Aim: Obesity is the most common nutritional disorder and is a significant risk factor for numerous adult diseases including periodontitis. The aim of this study was to investigate the association of human body composition (obesity) and periodontal disease using wireless body analysis scale in individuals aged 18 to 36 years.

Materials and Methods: 140 individuals (70 normal and 70 obese subjects) were evaluated in this historical cohort study. The periodontal examination consisted of: Probing Pocket Depth (PPD), Clinical Attachment Level (CAL), Plaque Index (PLI) and Bleeding on Probing (BOP). Body Mass Index (BMI) and body composition parameters (consisting of Body Water, Body Fat, Muscle Mass, Bone Mass, Lean Mass and Visceral Fat) were measured using ihealth scale body analysis hs-5 device. Sociodemographic variables and periodontal disease risk indicators were evaluated as covariates. Results were evaluated by Mann-U- Whitney tests and Spearmen coefficient calculation.

Result: All periodontal indexes were significantly higher in the case group compared to control ($P<0.05$). There was weak correlation between human body composition variables and BOP but there was no correlation with other indexes as PPD, CAL & PI.

Conclusion: The results of this study indicate that there are correlations between human body composition and periodontal status in young adults.

Keywords: Periodontium; Body Mass Index; Adipose tissue

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