ABSTRACT

Objective: To compare the cephalometric variables of obese (body mass index (BMI) ≥30) and non-obese (BMI<30) Turkish male patients with obstructive sleep apnea syndrome (OSAS).

Materials and Methods: OSAS diagnosed 85 patients who were obese [n=37; mean age (±SE), 49.41±1.54 year] and non-obese [n=48; mean age (±SE) 46.92±1.39 year] were included in the study. The cephalometric measurements and polysomnographic data of the patients were compared and a discriminatory analysis was performed.

Results: The apnea-hypopnea index (AHI) was significantly higher in obese patients (p<0.01). Bimaxillary protrusion was found in obese patients (p<0.05). The non-obese patients with AHI ≥ 30 had an increased mandibular plane angle. In the stepwise discriminant analysis done separately in obese and non-obese patients according to AHI; only the hyoid bone position was included in the model in obese patients and the estimated success of discrimination of AHI’s level (<30 and ≥0) was 70.3%. Age, anterior face and posterior face height were included to the model in non-obese patients and the estimated success of discrimination was found as 79.2%.

Conclusion: Craniofacial morphology has an effect on the severity of OSAS. If the craniofacial morphology tends toward a worsening of OSAS with obesity, the severity of the OSAS increases.