Cephalometric Analysis of Nonobese Snorers Either with or Without Obstructive Sleep Apnea Syndrome

蔡恒惠(Fang Long);邊苗瑛(Mauo-Ying Bien)
Hung-Huey Tsai;Ching-Yin Ho;Pei-Lin Lee;Ching-Ting Tan

Abstract

To determine if there is an indicator on the lateral cephalometric radiograph that can be used for the differential diagnosis of severe obstruct sleep apnea syndrome and simple snoring in nonobese young male adults. MATERIALS AND METHODS: The subjects were Taiwanese male patients with a complaint of snoring and/or sleep apnea, whose body mass index was less than 25 kg/m (2) and who were younger than 40 years old. Forty-six patients with severe obstructive sleep apnea and 36 patients with simple snoring were selected and underwent lateral cephalometric radiography, from which 24 linear and 34 angular measurements were calculated. Differences between the two groups were studied, and a discriminatory analysis was performed. RESULTS: Soft palate length, mandibular body length, tongue size, and distance from the hyoid bone to the mandibular plane were significantly larger in patients with severe obstructive sleep apnea syndrome. Of the original grouped cases, 76.5% were correctly classified using these five variables. The position of the hyoid bone in simple snorers was near the straight line from the third vertebra to the menton, whereas the position of the hyoid bone in severe obstruct sleep apnea syndrome patients was far below the line from the third vertebra to the menton. CONCLUSION: The position of the hyoid bone relative to the line from the third vertebra to the menton can be used as an indicator for a diagnosis of severe obstruct sleep apnea syndrome in nonobese young male Taiwanese adults.