VOLUMETRIC EVALUATION OF PHARYNGEAL SEGMENTS IN OBSTRUCTIVE SLEEP APNEA PATIENTS

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Methods

A retrospective study was performed reviewing polysomnographic data and CBCT records of 29 patients (13 males and 16 females). The correlation between the volume of nasopharynx, oropharynx and total superior pharynx with the AHI was assessed by Pearson’s rank correlation coefficient.

Results

The mean body mass index was 29.72 kg/m², the average age was 46.10 years. Ten patients presented severe OSA, 7 had moderate OSA, 6 had mild OSA and 6 were healthy. The correlation between the volume of nasopharynx, oropharynx and total superior pharynx volume with the AHI was, respectively, −0.437 (p = 0.018), 0.205 (p = 0.286) and −0.319 (p = 0.091). The Pearson’s rank controlled by BMI was −0.333 (p = 0.083), −0.124 (p = 0.529) and 0.219 (p = 0.263).

Conclusion

There is not correlation between the volume of the airway and OSA, assessed by AHI and controlled by BMI. The volume of the upper airway as an isolated parameter did not correlate to the severity of the obstructive sleep apnea syndrome, and should be evaluated together with other factors.

Keywords

Upper Airway, Obstructive Sleep Apnea, Cone Beam CT.

Trial Name

Volumetric evaluation of Upper Airway in Obstructive Sleep Apnea. Registered at German Clinical Trials Register (DRKS): http://www.germanctr.de by the number DRKS00005948.

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