ABSTRACT

In our study, we proposed to learn the success rate of different operations techniques in OSAS. To find out the success rate of sleep nasopharyngoscopy and the correlation of postoperative sleep saturation and apnea-hypopnea index (AHI) in OSAS patients. To analyze the results of the postoperative tongue base pathology, and to find a new method for the diagnosis of OSAS.

We performed a cross-sectional study on 103 patients: 55 patients were performed with UPPP operation, 37 patients were performed with laser-assisted tongue base surgery (LAATS), and 11 patients were performed with nasal endoscopy. UPPP operation was performed in patients with mild and moderate apnea hypopnea index (AHI ≤30, and AHI ≥20). LAATS operation was performed in patients with AHI >30. Nasal endoscopy was performed in patients with AHI >30. Sleep saturation and AHI were measured at the sleep laboratories of Canakkale Asker Hastanesi KBB. Statistical analysis was performed using SPSS software. A level of p < 0.05 was considered statistically significant.

RESULTS

The average age was 49 and there wasn’t a significant correlation between age and AHI. There was no significant correlation between preoperative sleeping saturation and AHI. There was no significant correlation between postoperative sleeping saturation and AHI. The diversity in operation technique created 90% difference in average age. Patients who had mild to moderate sleep apnea and were diagnosed with OSAS with the polysomnography AHI between 5–30 were candidates for UPPP operation (in DR with 0.05 correlation). We concluded that in OSAS patients with AHI >30, we observed a significant correlation between the postoperative tongue base pathology and AHI. There was a significant correlation between preoperative and postoperative AHI and tongue base pathology. There was no significant correlation between preoperative and postoperative MOS and tongue base pathology. There was a significant correlation between postoperative ODI and tongue base pathology. There was no significant correlation between postoperative ODI and soft palate pathology. There was no correlation between postoperative tongue base pathology and soft palate pathology.

DISCUSSION

In order to detect narrowing points in upper airways, some techniques were used such as lateral radiography, CT, and MR. Although the airway obstruction in OSAS patients can be visualized and the nasal structures can be correlated, cranial and palatal structures cannot be visualized. AHI and ODI are the gold standard for the diagnosis of OSAS. Although the usage of sleep saturation in OSAS patients can be correlated with the severity of sleep apnea, it is not an ideal technique for the diagnosis of OSAS. The diagnostic accuracy of sleep saturation and ODI in OSAS patients is in a dynamic phenomenon that happens during sleep, there should be a more precise diagnostic technique for the diagnosis of OSAS and postoperative evaluation of the tongue base pathology. We have compared various techniques for the diagnosis of OSAS and the success rate of the different techniques. The postoperative tongue base pathology can be diagnosed by the diagnostic techniques that we have presented. We have presented a new method for the diagnosis of OSAS and postoperative evaluation of the tongue base pathology.

CONCLUSION

The diversity in operation technique created 90% difference in average age. In OSAS patients with AHI >30, we observed a significant correlation between the postoperative tongue base pathology and AHI. There was a significant correlation between preoperative and postoperative AHI and tongue base pathology. There was no significant correlation between preoperative and postoperative MOS and tongue base pathology. There was a significant correlation between postoperative ODI and tongue base pathology. There was no significant correlation between postoperative ODI and soft palate pathology. There was no correlation between postoperative tongue base pathology and soft palate pathology.