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Barbed Palatoplasty vs. Expansion Sphincter Pharyngoplasty With Anterior Palatoplasty

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Objective/Hypothesis: To compare the functional outcomes and complication rates in patients who underwent expansion sphincter pharyngoplasty with anterior palatoplasty (ESPwAP) versus barbed pharyngoplasty (BP).

Study Design: Retrospective cohort study.

Methods: A medical database was used to retrieve the records of 129 patients who had an isolated palatoplasty surgery between January 2014 and July 2018. Patients who had mild or moderate obstructive sleep apnea without a history of revision surgery and underwent ESPwAP or BP in addition to traditional tonsillectomy were included in the study. Pre- and postoperative polysomnography and Epworth Sleepiness Scale (ESS) was evaluated in the patients who completed at least a 6-month follow-up period.

Results: Forty-five and 53 patients met the inclusion, and were comprised of BP and ESPwAP groups, respectively. ESPwAP and BP significantly improved mean apnea hypopnea index (AHI) from 28.5 to 9.1 (P = .000) and 25.9 to 7.4 (P = .000), respectively. No significant statistical difference was found between the mean AHI scores of two groups. Selecting a threshold of a 50% reduction in AHI and AHI less than 20 events/h, success rates were 86.6% in BP group and 84.9% in ESPwAP group.

Conclusions: Our study showed that both types of surgeries are effective with comparable results. The BP technique may be preferred when possible to avoid soft tissue excision and seems to be a less invasive procedure with a similar success rate when compared to ESPwAP.

Key Words: Obstructive sleep apnea, soft palate, pharyngoplasty, surgical success.

Level of Evidence: 4

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