



Palatopharyngeus muscle in pharyngoplasty surgery for OSAS: cut or not to cut?

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Dear Editor,

With great interest, we read the anatomic study on the inferior end of Palatopharyngeus Muscle (PPM) [1]. The author concluded that PPM is one of the essential muscles required in proper swallowing of food. It is also known that PPM assists in the phonation of high-pitched sounds, it is active in the production of oral sounds and nasal speech sounds [2].

PPM is also defined “the key muscle” in the pharyngoplasty surgeries for Obstructive Sleep Apnea (OSA)”, playing a role in the maintenance of Upper Airway (UA) patency by a reflex activation in response to negative pressure application (greatest when nose-breathing in the supine posture).

The pharyngeal surgery for OSA has evolved from radical excision of “redundant” soft tissue for the enlargement of airway toward mini-invasive reconstruction to fulfill both preservation of pharyngeal function and improvement in sleep apnea, but the PPM management is still debated [3, 4].

Mantovani et al. in 2017 [5] proposed a new non-resective strategy on PPM in cases of circular collapse at Drug Induced Sleep Endoscopy (DISE), creating lateral wall tension relocating PPM supero-laterally, through Barbed Sutures (BS) that driven downwards to the pterygomandibular raphe and then direct from laterally to medially through-out the tonsillar fossa to reach and encircle the PPM vertical fibers.

Although the promising results of non-resective PPM [5] pharyngoplasties and the routine BP use in many OSA surgical centers, all the BP pharyngoplasties developed in recent years still include PPM resection or weakness.

The anatomic study of Fukino K et al. [1], opens sleep surgeons’ minds on resective/interruptive pharyngoplasties, in particular:

How can resected PPM function?

How can myofunctional therapy for OSA be effective?

What about the risk of dysphagia in older age?

If further OSA-pharyngoplasties comparing studies on a large scale will confirm the promising results of non-resective PPM management, the PPM cutting as important for speech, swallowing and respiration is questionable in the era of mini-invasive pharyngeal surgery with integrated treatment for OSA.

Declarations

Conflict of interest The authors declare that they have no competing interests.

Ethical approval No institutional review board approval was necessary because of the nature of this project.

Informed consent This article does not contain any studies with human participants or live animals performed by any of the authors.

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