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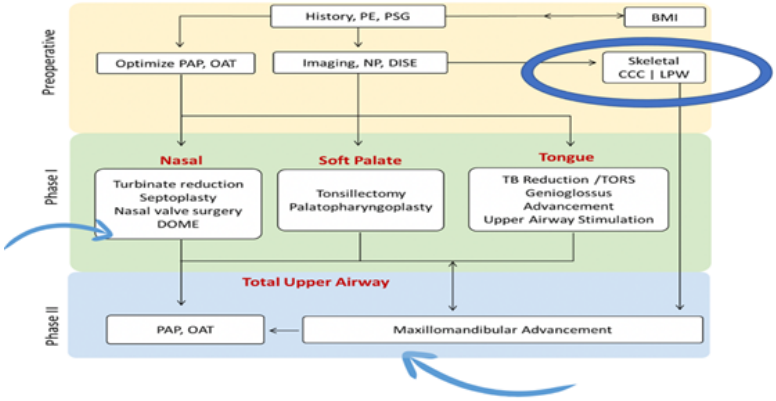
Functionally driven esthetics: Maxillofacial considerations for sleep surgery

This study evaluated the release of the lingual frenulum by means of frenectomy in newborns from zero to 90 days of age who were breastfeeding and had a diagnosis of ankyloglossia with surgical indication, by comparing the use of two thermal surgical instruments: electrocautery and laser high power diode. Sixty infants were randomly allocated into two groups, but three participants did not meet the inclusion criteria leaving fifty-seven participants in total (23 undergoing electrocautery and 34 undergoing high-power diode laser). Tongue movements were assessed based on a clinical assessment and using the Bristol Tongue Assessment Tool (BTAT) before and 15 days after the surgical procedures. The visual analog scale was applied to mothers on the same occasions to measure pain during breastfeeding. Both groups showed an increase in the BTAT score (favorable result) in the post-surgical evaluation, attesting to the effectiveness of the application of the current protocol. For some infants, the anterior third of the tongue was not always free to allow the movements necessary for lingual functions. It was essential that the surgeon had skill and in-depth knowledge of the equipment used to avoid accidents and complications in the region of important structures and all surgeries were performed by a single surgeon. Both techniques used in this study were safe and effective, causing little bleeding and few trans and postoperative complications. The group submitted to high-power diode laser showed less post-surgical bleeding compared to the group submitted to electrocautery and absence of inflammation at the edges of the surgical cut, but a higher number of recurrences and need for reintervention (58%) in relation to the use of electrocautery (26%) and the number of recurrences of the use of electrocautery was very high, despite being lower than the use of diode laser. In the group that used electrocautery, 7 participants had inflammation at the edges of the surgical wound in relation to the use of laser. The cases that presented recoaptation of the cut tissues and/or fibrotic scarring at the cut site were considered recurrent, both limiting the possibility of moving the anterior third of the tongue. There was no difference in the results regarding maternal pain for the two groups.



Recent Publications

1. Salman, L.A., R. Shulman and J.B. Cohen, Obstructive Sleep Apnea, Hypertension and Cardiovascular Risk: Epidemiology, Pathophysiology and Management. Curr Cardiol Rep, 2020. 22(2): p. 6
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3. Camacho, M., et al., Large maxillomandibular advancements for obstructive sleep apnea: An operative technique evolved over 30 years. J Craniomaxillofac Surg, 2015. 43(7): p. 1113-8.

Biography

Allen Huang is a fellowship trained oral & maxillofacial surgeon who subspecializes in treating patients with obstructive sleep apnea. He obtained his dental degree at UC San Francisco and completed his maxillofacial surgery residency training at the University of Southern California. Following graduation, he completed a sleep surgery fellowship at Stanford University, where he served as a clinical instructor and fellow in the department of Otolaryngology / Head & Neck Surgery. He currently is an assistant professor of oral & maxillofacial surgery at LAC + USC medical center in Los Angeles, California. His clinical interest include functional nasal surgery, maxillofacial reconstruction for sleep apnea and trauma.

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