



Technique and Outcomes in Tissue Augmenting Palatoplasty for Cleft Palate Repair: A Single Institution Analysis

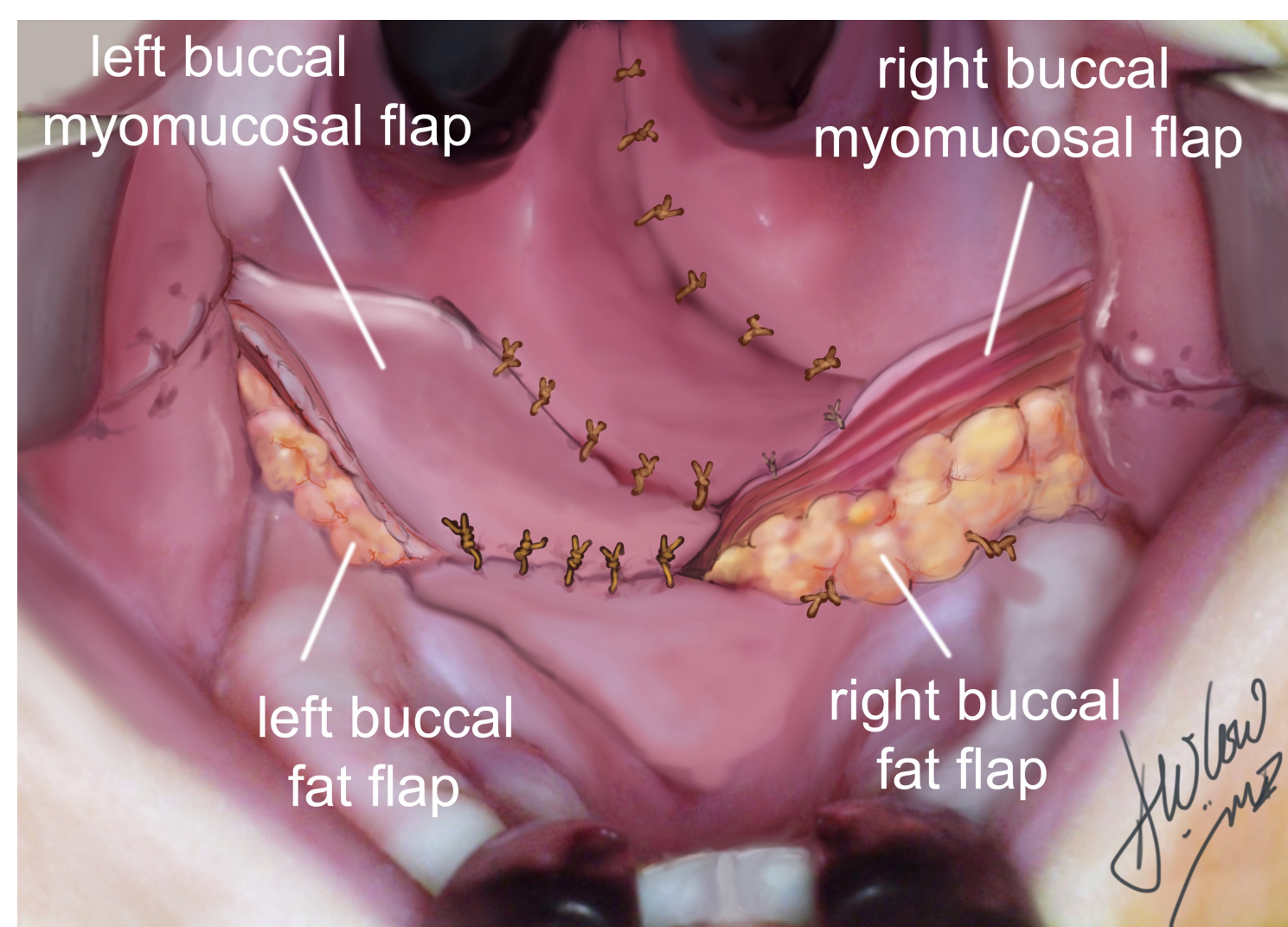
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BACKGROUND

Large relaxing incisions have long been used in cleft palate repair but may lead to maxillary growth restriction. Tissue augmenting palatoplasty (TAP) procedures, including buccal myomucosal flaps and buccal fat flaps, can be used to reduce scar burden and obliterate dead space.

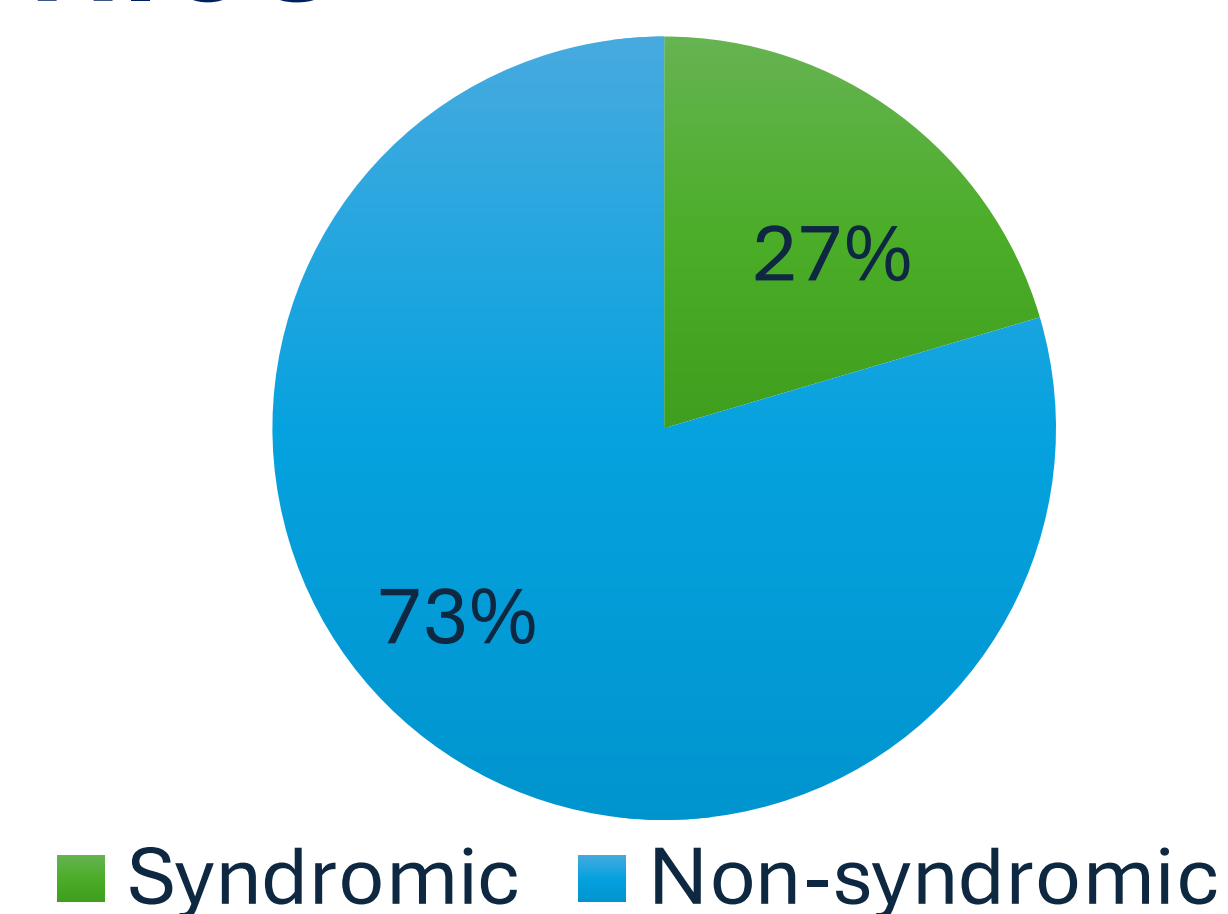
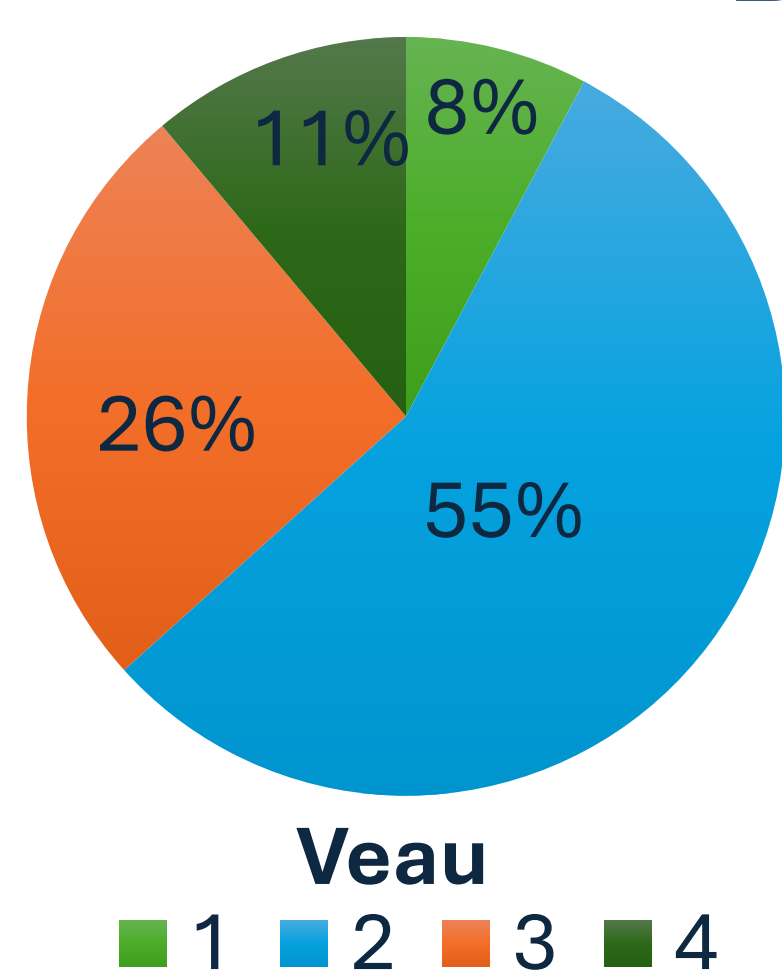
The introduction of increased tissue in the oral cavity, however, has raised concerns about airway obstructions. This study assessed efficacy and safety of TAP procedures at a single institution.



METHODS

Cohort study of primary TAP patients ($n=108$) and historical Furlow-only controls ($n=103$). PWSS, complication rate, and sleep study evaluations were compared between the two groups.

DEMOGRAPHICS



TAP procedures rarely resulted in airway obstruction.

TAP and Furlow-only procedures resulted in **similar fistula rates** ($p=.91$)

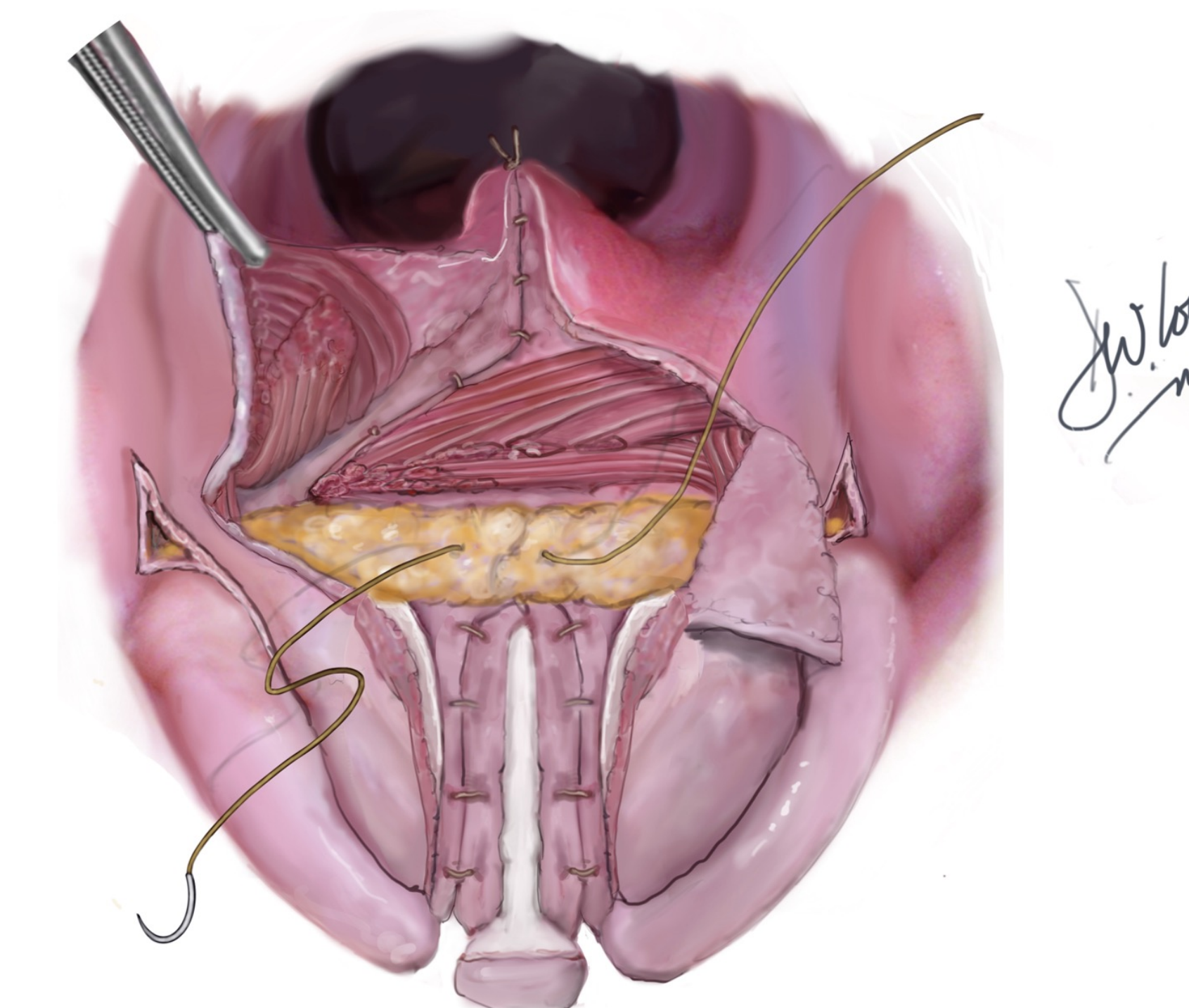
TAP patients had **slightly better speech scores** than Furlow-only patients (91% vs 79% competence, $p=.04$)

CONCLUSIONS

TAP procedures are an effective method of reducing velopharyngeal insufficiency in cleft palate repair. TAP procedures did not result in increased in overall complications and there was no evidence that buccal fat flaps increased incidence or severity of airway obstruction.

LIMITATIONS

Our use of an historical cohort prevents a robust comparison of airway outcomes between the two cohorts. Additionally, interpreting the comparison of PWSS is complicated by transitions among senior surgeons prior to our center's use of TAP.



6w post-TAP airway screening ($N=108$)

12% ($n = 13$) underwent sleep study

6.5% ($n=7$) mild obstruction

3.7% ($n=4$) severe obstruction