



MUSC Pediatric ENT Update 2024

Updates in VPI. Buccal myomucosal flaps.

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Disclosures

▶ None



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VPD

- ▶ What is VPI?
- ▶ VPD (Velopharyngeal Dysfunction)
 - ▶ 1. Velopharyngeal insufficiency
 - ▶ STRUCTURAL
 - ▶ 2. Velopharyngeal incompetence
 - ▶ NEUROLOGIC
 - ▶ 3. Mislearning
 - ▶ FUNCTIONAL



VPI

- ▶ What is VPI?
 - ▶ Inability to completely separate nasopharynx from oropharynx during speech.
 - ▶ Hypernasality: an increase in nasal resonance during speech production
 - ▶ Nasal air emission: the sound of air escape through the nose on non-nasal phonemes



Definitions

- ▶ What is a phoneme?
 - ▶ Smallest unit of speech that can be used to make one word different from another
 - ▶ Nasal phonemes: m, n, ng
 - ▶ During all non-nasal phonemes – velum closes nasopharynx from oropharynx.



VPI

- ▶ Common in children after cleft palate repair
 - ▶ Up to 20-30%
- ▶ Submucous cleft palate
- ▶ 22q11
- ▶ Hypotonia syndromes
- ▶ Transient VPI after adenoidectomy



VPI Diagnosis

- ▶ Teachers, parents, speech therapist
- ▶ Multidisciplinary clinical evaluation
- ▶ Foggy mirror
- ▶ Perceptual
- ▶ Nasometry
- ▶ Speech endoscopy
- ▶ Cine MRI
- ▶ Fluoroscopy



VPI

- ▶ Speech endoscopy
 - ▶ Pattern of closure
 - ▶ Coronal
 - ▶ Sagittal
 - ▶ Circular
 - ▶ Circular with Passavant's ridge
- ▶ Speech therapy is nearly always recommended for at least 3-6 months prior to considering surgery.
- ▶ Other surgical considerations:
 - ▶ Age, duration of VPI, etiology of VPI, genetics, tone, developmental delay



Non Surgical Interventions

- ▶ Speech therapy
- ▶ Obturator



Surgical Interventions

- ▶ Pharyngeal wall
 - ▶ Sphincter pharyngoplasty
 - ▶ Pharyngeal flap
 - ▶ Posterior pharyngeal wall augmentation
- ▶ Palatal lengthening only
 - ▶ Furlow palatoplasty
 - ▶ **Buccal myomucosal flaps**
- ▶ In general, we have historically lacked many tools to bring tissue in and lengthen the palate soft palate, and therefore the buccal myomucosal flap has gain popularity recently as it has filled that need.



Buccal myomucosal flaps

- ▶ History
 - ▶ history
- ▶ History



Buccal myomucosal flaps



Buccal myomucosal flaps

▶ LITERATURE



Buccal myomucosal flaps

▶ Discussion

- ▶ Facial asymmetry or atrophy
- ▶ Bridges burned. Re-harvest?
- ▶ Primary vs secondary intervention.
- ▶ Need for second surgery for division. Need to divide?



Thank you



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