Cleft Palate Speech and Feeding

*Train the Trainer*
Module 6:

- Surgical Palate Repair:
  - Primary Palate
  - Secondary Palate
  - Fistulas

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Repairing Cleft Lip

Rule of Ten:
*Remember that this is for cleft lip repair, not cleft palate surgery

- At least 10 weeks old.
- Weigh at least 10 pounds or 4.5 kilos.
- Have a hemoglobin of 10 gm prior to lip repair.
Before Lip Repair

After Lip Repair
Before Lip Repair

After Lip Repair
Cleft Palate Repair

Currently most cleft palate surgeons want to close the cleft palate between 9 and 12 months.
Surgical techniques for closing the palate:

Bardach two flap palatoplasty
Surgical techniques for closing the palate:

Furlow double opposing z-plasty
Before Palate Repair

After Palate Repair
Before Palate Repair

After Palate Repair
Fistulas

- Fistulas are persistent openings between the nasal and oral cavity. They occur when the palate fails to heal after a palatoplasty.
- Fistulas occur in about 5% to 30% cases. It depends on the size of the cleft and the quality of the surgery.
- Fistulas can be asymptomatic but can also cause significant hypernasality and nasal air emission during speech and regurgitation of food and fluids into the nasal cavity during eating.
Alveolar Fistula
Alveolar Fistula
With these patients, the fistula is unlikely to affect the velar sounds /k/ and /g/ because the fistula is anterior to where those sounds are produced on the soft palate.

In these cases I would work on those sounds. If I could get the patient to produce the /k/ or /g/ correctly with good velopharyngeal closure, I could advise the surgeon that the patient has good velopharyngeal closure and only needs to have the fistula repaired.
Secondary repairs for VPD:

**Pharyngeal flap surgery**

Flap is cut and raised from the posterior pharyngeal wall, and then sutured to the velum. Lateral ports (spaces) on both sides of the flap allow for normal breathing.
Secondary repairs for VPD:

**Sphincter pharyngoplasty**

- Often used when there is poor lateral pharyngeal wall movement or deep lateral pharyngeal recesses with better closure of the port with the velar movement.

- Creates a dynamic sphincter that encircles the velopharyngeal port.

- Reported success rate of 60% to 80%.
Secondary repairs for VPD:

**Furlow palatoplasty**
- Lengthens the velum to aid in velopharyngeal closure.
  - Aids in better speech outcomes
  - Repositions the *levator veli palatini* muscle (which is the primary muscle of velopharyngeal closure)
Cleft Maxillary Advancements
Can affect VPC and speech

Photos thanks to:
Daniel Perez, D.D.S.
University of Texas at San Antonio
Before and After
The Cleft lip/Palate Interdisciplinary Team

- Parental involvement and home practice
- Surgeon
- Speech and language pathologist
- Otolaryngologist (ENT)
- Audiologist
- Social worker
- Psychologist
- Geneticist
- Pediatrician
- Nurse
- Dentist
- Orthodontist
Importance of interdisciplinary and teamwork
Credits

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Discrimination Clown Picture
Speech Sound Assessment and Stimulability
Acevedo Spoke
Therapy Word Games
Therapy Books for Phrases and Sentences


Kummer, A. (n.d.). Speech therapy for cleft palate or velopharyngeal dysfunction (VPD). *Cincinnati Children’s Hospital Medical Center*, 1-6.


