Breastfeeding the Infant with Cleft Lip and Palate

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Memorial’s Kids at Koke Mill

Objectives

• Participants will identify types of clefts and their impact on breastfeeding.
• Participants will identify ways to support and assist mothers and infants with cleft lip/palate.
• Participants will identify professionals who can assist with cleft lip/palate issues and make appropriate referrals.
What is Cleft Lip & Palate?

• Arises in early pregnancy development—by about 10 weeks gestation
• Structures do not fuse properly in midline
• Causes—genetic and environmental factors
• Reduced folic acid intake can contribute to lip clefts; Vitamin B?
What is Cleft Lip/Palate?, cont.

• Lip with/without palate- more common in males
• Palate only- more common in females
• About 5% have identifiable syndromes with CL/P or isolated CP

Classification of Clefts

• Davis and Ritchie
• Veau
• Kernahan and Stark
• International Confederation of Plastic and Reconstructive Surgery
Cleft Lip

• Clefts of the lip can range from simple notch in upper lip to a complete opening in the lip, extending to the floor of the nasal cavity and involving the alveolus to the incisive foramen.

Normal Palatal Anatomy
Cleft Lip

Unilateral cleft lip

Bilateral cleft lip

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Cleft Palate

- May involve soft palate or extend partially or completely through the hard and soft palates
- Alveolus remains intact
- May be sub-mucous and difficult to detect
Cleft Lip and Palate

Prevalence and Incidence of CL&P

- ABM 2007: Worldwide .8-2.7 cases per 1000 live births
- Cochrane Collaborative 2011: 1 out of every 700 births
- Highest incidence in Native American (3.5/1000) and Asian (1.7/1000)
- Lowest incidence African American (.5/1000) and Caucasian (1/1000)
Lip, Palate, or Lip AND Palate

- Of total # of infants with cleft lip/palate-
  - 50% combined CL/P
  - 30% isolated CP
  - 20% isolated CL
  - 5% CL extending to include alveolus
  - *Usually unilateral but 10% bilateral

Oral Motor Skills and Breastfeeding

- To be successful, there needs to be both suction and compression
- Suction- attachment, stability, extraction of milk
- Compression- pressing of breast between the tongue and palate with the jaw
- Both combine to help with milk transfer and delivery
Normal Feeding in Infants

- Responds to feeding cues with appropriate reflexes
- Coordination of breathing and swallowing
- Maintaining active suck-swallow-breathe
- Create/maintain negative pressure
- Manage milk
- Receive milk in stomach
- Digest and metabolize milk

Feeding the CL/P Infant

- Cleft Lip- may have problems creating seal
- Cleft Palate- poor negative pressure, poor compression of nipple, leading to increased length of feeds, breathing issues, nasal regurgitation, milk supply issues, etc.
Can the Infant Breastfeed??

- Answer= “Maybe!!!”
- Size/type/location of cleft
- Age of infant at birth
- Oral motor skills
- Development of skills to compensate
- Emphasize importance of breast milk/feeding carefully
- Let infant try!

“Maybe”. Now What do I do?

- Back to the beginning
- Put on our investigative hats and look at history
- Get out the counseling couch!
Interview Questions

• Was parent aware of a cleft prior to birth?
• How are they dealing with knowledge?
• Do they have questions or concerns?
• How is the infant feeding currently?
• What have they tried- successfully and not
• Is family being followed by a Team?

Counseling Parents

• Be sensitive
• Listen, don’t judge
• Respect grief
• Acknowledge emotion
• Perform education- repeat, go slow, be direct
• Be realistic- case-by-case recommendations
Patient Education Materials

• Handout examples

Repair of Clefts

• Lip- Typically repaired 1st
• Time frame varies
• Improves appearance which can improve interactions
• Palate- Typically done between ages 6 months- 3 years
• Many types- Involves Plastics, ENT, Oral Surgery, etc.
Goals of Surgical Intervention

- Separation of nasal and oral cavities
- Construction of a tight velo-pharyngeal valve
- Preservation of facial growth
- Development of aesthetic dentition and functional occlusion

Feeding Plan

- Written, verbal, pictures to increase understanding and compliance
- Individualized but may be a standard form
Prior to Lip Repair-Strategies

- Positioning- Trial and error
- Try holding infant with lip oriented toward top of breast
- Oral Facilitation- mom may try to occlude with fingers and/or support cheeks to decrease width of cleft and increase closure
- May also manipulate breast tissue to get better closure
- Bilateral-straddle may work better

Prior to Palate Repair- Strategies

- Use of semi-elevated position
- Football hold
- Position breast toward greatest segment-where is the most bone
- May need chin/jaw support
- Support breast and tip downward to keep nipple from entering cleft
Cleft Strategies, cont.

- Massage
- Manual expression
- PUMP!!!
Steps for Success

• 1. Experienced RN to educate mother 1-on-1
• 2. Proper positioning
• 3. Dancer hold
• 4. Moms pump immediately after delivery & practice squeeze/suckle with baby at breast
• LATCH score, track weights and I/O
• Privacy for mom, infant and family

Results

• 20 newborns- at 1 wk and 1 month post discharge, were exclusive. At 3-4 months, 16 were on formula (mothers back to work?)
• Study concluded that it is possible to have exclusivity with complete CL-CP
Products That May Help

Bottles, Nipples, Syringes, Oh My!

- Cups
- Bottles/nipples
- Finger feeder
- Syringes
Bottles and Nipples

Rigid vs. Squeezable Bottles

- Cochrane Collaboration 2011
- No statistically significant differences between types for QOL
- ½ studies showed benefit for head circumference at greater than 6 mo, but pooled analysis showed no difference for weight or head circ at any time.
- Squeezable better for protein intake at 3 and 6 months
Other Options

Breastfeeding vs. Spoon

- Cochrane Collaboration 2011
- Darzi 1996- cleft lip study
- 6 wks post surgery- difference shown in favor of breastfeeding
- Showed spoon-fed infants required more IV fluids and analgesia/sedation, and more total cost of hospitalization
Transition to Cup

- Before palate repair, infants need to be off of bottles and pacifiers
- Free flowing, no value
- DO NOT advocate removal of valves!
- Avent rimmed cup
- Offer all liquids in trials

Keep in Mind

- Monitor infant for hydration and weight gain
- Use of supplemental feedings as appropriate
- Consult with Pediatric Registered Dietician, if appropriate
Referrals to Other Professionals

- Head and Neck Team
- Speech Pathology
- Registered Dieticians
- Occupational Therapy/Physical Therapy
- Social Work
- Orthodontics/Oral sx
- Early Intervention

Teams in Illinois

- Chicago- Shriners Hospital for Children, Laurie Children’s Hospital of Chicago; Craniofacial Canter at U of I Chicago; Rush Craniofacial Center
- Maywood-Loyola University Ronald McDonald Children's Hospital
- Park Ridge- Cleft Palate Team at Lutheran General Hospital
Teams in Illinois

• Peoria- Central Illinois Orofacial Anomalies team
• Springfield- SIU School of Medicine CHNAC
• Urbana- Carle Cleft Lip and Palate Team

• Source: www.cleftline.org

www.CleftAdvocate.org

• Links to various agencies and local support people in cities in IL
• Includes DSCC, IDHS, SSI/SSDI, WIC, Easter Seals, Early Intervention, etc
Contact Information

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References

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