My baby is not breastfeeding well.
Is it tongue-tie?

Nancy White, BSN, RN, IBCLC
Erin Walsh, MA, CCC-SLP, IBCLC

Objectives
- List 3 maternal and infant features that may complicate a feeding dyad
- Discuss 5 interventions to address feeding efficiency
- Identify 3 frenulum assessment tools and potential limitations
- Vocalize 5 scenarios that may mirror ankyloglossia and could be remedied non-surgically
- State current research state of potential sequelae of retaining a frenulum in a successful breastfeeding dyad

Pieces of the Baby's Puzzle

Hazelbaker Assessment Tool for Lingual Frenulum Function (ATLFF)

5 Appearance Items
- Appearance of tongue when lifted
- Elasticity of frenulum
- Length of lingual frenulum when lifted
- Attachment of lingual frenulum when lifted
- Attachment of lingual frenulum to inferior alveolar ridge

Pieces of the Mother's Puzzle

Hazelbaker Assessment Tool to Assess the Lingual Frenulum Function (ATLFF)

7 Function Items
- Laterализация
- Lift of Tongue
- Extension of Tongue
- Spread of Anterior Tongue
- Cupping
- Peristalsis
- Snapback
ATLFF

- Comprehensive but not always practical in a busy hospital setting.
  
  Study by Amir, James, & McDonald (2008)
  
- Appearance items showed moderate reliability scores
  
- Three function items (lateralization, lift, tongue extension)
  
- Four function items (spread, cupping, peristalsis, snapback) showed low reliability scores.

Bristol Tongue Tie Assessment (BTAT)

- Each item scored 0-2:
  
  - Tongue appearance
  
  - Attachment to lower gum
  
  - Lift (vs. curling)
  
  - Protrusion
  
  - Scale of 1-3 indicates the most severe tongue tie

BTAT

- Study by Ingram, Johnson, Copeland, Churchill, Taylor, & Emond (2015) shows good correlation between BTAT and ATLFF
  
- Study also shows difficulty in providers to agree on the length and elasticity of the tongue (appearance item 2-3).

Coryllos Classification (Used by ABM)

- Type 1-2 Classical Anterior (Study by Delibery & Ryan supports accuracy)
  
- Type 3-4 Posterior (less research to support)
  
- Anterior Tie (Types I and II)
  
- Posterior (submucosal) Tie (Types III and IV)

Coryllos Classifications

(Analesdepediatrica.org)

- Type I
  
- Type II
  
- Type III
  
- Type IV

Limitations to Lingual Frenulum Assessment Tools

- So, who has normal tongue?
  
- Many assessment tools are either impractical or subjective
  
- Lack of general agreement about what is normal tongue function
  
- Time of when best to perform
  
- Lack of Medical Classification of ankyloglossia
Things to Consider

- Most research states overall prevalence of ankyloglossia in general population is between 3 - 16%.
- This refers primarily to anterior tongue ties.
- Of this population, not all have breastfeeding issues.
- Prevalence or agreement on posterior ties not uniform.

What accounts for the increase of tongue tie diagnosis?

- From 1997 - 2016 more than 834% increase in reported frenotomy diagnosis and an 866% increase in frenotomies (2017 report cited by Cautero, 2019).
- Increase in awareness?
- Increase in practices specializing in tongue ties.
- The role of social media.

The Role of the IBCLC

- Are we too quick to diagnose?
- Is the information that we are using based on evidence-based practice and good research vs. marketing by tongue tie providers?
- Protecting the integrity and credibility of our profession.
- The concept of "Do No Harm"

The Need for More Evidence

- Challenges of double-blinded studies especially for posterior frenulum (Dollberg, Botzer, Grunis & Mimouni, 2006).
- Overall, studies into the efficacy of frenotomies are of poor quality and characterized by author bias. (Douglas, 2017)

Some Suggestions for Research

- Patients who are possible candidates assessed by an IBCLC independent from the frenotomy providers.
- Control group to be offered ongoing IBCLC as part of control.
- Consider limiting to babies over 4 weeks based on studies showing increase in breastfeeding ease over the first 4-5 weeks regardless of interventions.

The Need for Good Reliable Information for Providers and Parents

- New Zealand study (Dixon, Gray, Elliot, Shand & Lyon, 2018)
- Highlights the importance of good provider training in the use of the STAT
- Referral rates dropped significantly using this tool.
- No adverse effects on breastfeeding rates.
- Public service website for parents and providers.
Breastfeeding Problems

- Painful latch
- Nipple lacerations
- Inefficient feeding
- Low milk supply
- Clicking
- Aeromallia
- GI distress

**Critical questions**

- When do these symptoms reflect tongue tie?
- What is your diagnostic process?
- Which clinical scenarios have these symptoms and are unrelated to tongue tie?

**Case #1**

- 28-year-old G1P1 mom
- 40+5 weeks gestation baby currently 19 days old
- Chief complaint: "I think my baby is tongue-tied.
- Symptom: Nipple pain
- Weight gain: 50 grams/day exclusively breastfeeding
- No pumping or supplementation
- Upon inspection no nipple lacerations
- Feeds 8+ times per 24 hours

**Case #2**

- 37-year-old G2P1 mom
- 39 weeks gestation, currently 5 weeks old
- Chief complaint: Saw community IBCLC who said tongue is severely restricted and baby will not be able to nurse without tongue and labial frenotomy. Latching technique was observed, not modified. Parents reported no intervention other than surgical referral.
- Symptom: Occasional nipple pain, prior need for pump/bottle due to jaundice. Mom independently transitioned off this regimen.
- Weight gain: 34 grams/day exclusively breastfeeding
- No nipple lacerations, but nipples are extremely large: wide diameter and long
- Feeds 8-12 times per 24 hours

**Case #1**

**Discussion**

**What would you do?**

**Why?**

**Outcome**

- Nipple pain resolved with deeper latch
- Mom able to independently perform pain-free latch 2x during visit
- Baby transferred 75mL in 30 minutes

**Case #2**

- Nipple pain resolved with deeper latch
- Mom able to independently perform pain-free latch 2x during visit
- Baby transferred 75mL in 30 minutes
Case #2

**Outcome**
- Very large nipples
- Latch is shallow
- Discovered deep latch that did not gag baby and was comfortable for mom
- Needed occasional repositioning
- Attachment modifications dramatically resolved pain
- Parents relieved, felt they were given no options but lingual and labial frenotomy

**Suggested criteria for surgical intervention**
- Multidisciplinary care is key
  - **July 2019 JAMA Otolaryngology article**
  - Several successive visits with IBCLC/feeding specialist optimizing latch, milk supply, feeding frequency, transfer efficiency
  - Sharp nipple pain with latch, lacerations and blebs
  - Poor milk transfer and feeding fatigue, but adequate maternal supply
  - Unresolved sucking that imposes aerophagia and GI distress
  - Accompanying lingual tethering effecting protrusion and elevation

**Ongoing nipple pain**
- A variety of influencing factors: mechanical, external, central
  - Amir et al 2015 Aust Fam Physician
- Is modifying the baby appropriate?
- Depression and anxiety. *Caustive or reactive*
  - Kentshi-Takeda 2007 International Breastfeeding Journal
- Can moms just be hypersensitive?
- Co-morbidities: Fibromyalgia, Lupus
  - Schaefer 2004 MON Am J Matern Child Nurs
- How do we intervene?
  - Niczlan et al 2012 Journal of Human Lactation
  - Buck et al 2014 Breastfeeding Medicine

**Sleepy Babies**
- How to disambiguate:
  - Medical issues?
  - Temperament?
  - Infrequent feeding?
  - Overfeeding?
  - Tongue tie?
- Clinical experience: most kids wake up and feeding improves.
  - Support families when extra effort is needed to for optimal milk intake.

Walker, 1997 Journal of Human Lactation
Suck disorganization
- 31-year-old G1P1 mom (ICU RN)
- 40 weeks gestation, currently 3 months old
- Chief complaints: Frequent feeding, low intake, fussiness, GI distress, feeding refusal, choking.
- Symptoms: Latch normal but cannot sustain more than several swallows. Mom switched to bottles at 6 weeks because easier. Saw 2 different IBCLCs. Lip clip advised and performed—no change. Next IBCLC recommended tongue clip.
- Weight gain: 35 grams/day - all breastmilk
- Better on PPIs and H2 blockers. But is GI the true problem??
- Seeking another opinion.

WHY is her suck disorganized?

Laryngoscopy

Can you talk tongue tied?

LIPS TONGUE PALATE
The tongue is one of 3 structures vital to articulation

Which sounds could be at risk?
- LINGUIA-dental
  - TH
- LINGUIS-alveolar
  - D, Z, DZ, N, T, S, CH
- LINGUA-palatal
  - Z, R, J, SH
- LINGUA-velar
  - G, NG, K
Lingual mobility

- What do we look at in breastfeeding?
  - Protrusion and elevation
- How much movement do you need to talk?
  - Max protrusion: TH
  - Max elevation: L

Clinical thinking cap

- Breastfeeding is going well but there is a visible sublingual fold. Should you clip it to preserve speech production?

Research on ankygia and articulation

- Lalakea & Messner 2002
- Messner & Lalakea 2003
- Holler 2005
- Walls et al 2014
- Daggumati et al 2019

Conclusions on speech and TT

- Determine if the misarticulations are truly due to oral restrictions. There are many factors affecting speech: hearing, language, motor planning, muscle tone.
- Research has not (yet) proven tongue release is superior to conservative or no intervention.
- See a speech-language pathologist with expertise in articulation remediation.
- Consider severity speech impairment to guide surgical discussions. (Daggumati et al, 2019)
- Decide case-by-case in a collaborative fashion with family, SLP and ENT if releasing the tongue is a worthwhile pursuit after conservative means have been exhausted.
- If you are working with a baby who is feeding well and tongue tied, do not recommend they undergo frenotomy as prevention for speech disorders.

References

References


