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Does Your Child Need a Revision of the Lingual Frenum?

The first time a parent hears that his or her child is tongue-tied usually brings an initial response such as “Why has no one ever mentioned this to me before?” This is usually followed by a second and third question, “Is the procedure really necessary?” and “What will happen if we do not do it?” When you bring your child to my office a complete oral examination is always required. I will discuss all my clinical and, when appropriate, x-ray findings. My diagnosis and recommendations are based on treating over 40,000 children since 1974 and the results of treating and not treating various oral conditions. Although I encourage second opinions, they should always be with individuals with experience in treatment and diagnosis of infant abnormalities, not based on myths and fear of treating newborns and infants. Experience is the best teacher.

Diagnosis and rationale for treatment of Ankyloglossia (Tongue-Tied):

Until recently there were few studies, recommendations or consensus on what constitutes an abnormal lingual attachment, which can lead to the diagnosis and treatment of ankyloglossia. Today that is changing, although traditional medical teaching in the past been that a tongue-tie is of little relevance, will have no adverse sequelae, and can be ignored; the facts now do not support that belief. A common myth that is often repeated is that “the lingual frenum will stretch and that we do not need to treat this condition.” The reality is that a tongue-tie, by interfering with normal tongue mobility, can exert a harmful effect on many aspects of life. Ankyloglossia is a relatively common finding in the newborn population (approximately 3%) and represents a significant proportion of breastfeeding problems. One of the most misdiagnosed and an overlooked congenital abnormality observed in children is the abnormal attachment of the lingual frenum.

Academy of Breastfeeding Medicine suggests the following be used when evaluating whether a newborn requires a revision of the frenum. (*Protocol Academy of Breastfeeding Medicine, J.ABM Clinical Protocol Number 9: Guidelines for the evaluation and Management of Neonatal Ankyloglossia and its Complications in the Breastfeeding Dyad*)

Infant Factors to consider

- A. No latch**
- B. Un-sustained latch**
- C. Slides off nipple**
- D. Prolonged feeds**
- E. Unsatisfied after prolonged feeds**
- F. Falls asleep on the breast**
- G. Gumming or chewing on the nipple**
- H. Poor weight gain or Failure to thrive**
- I. Unable to hold pacifier**

Maternal Factors to consider

- A. Creased or blanched nipples after feeding: flattened**
- B. Cracked, bruised or blistered nipples**
- C. Bleeding nipples**
- D. Severe pain with latch**
- E. Incomplete breast drainage**
- F. Infected nipples**
- G. Plugged ducts**
- H. Mastitis & nipple thrush**

Treatment of the tongue-tie revision in neonates with the Erbium: YAG or 1064 nm diode laser usually does not require sedation or numbing agents. The newborn is wrapped in a blanket or similar appliance to control unwanted movements and then the frenum is released. In most cases, 2-8 mm of freedom is adequate to allow for improved and comfortable nursing. Additional revision maybe need at a later time if further problems arise.

After the treatment is completed, children can immediately begin nursing and the mothers' have reported immediate relief of pain, extended nursing and improved infant sleeping. Quality of life can be improved by an operation which is simple, brief, and virtually devoid of complications. In older children, prior to initiating extensive and often expensive speech therapy, revising the tongue will assist in correcting many speech abnormalities. Trying to educate or train the tongue to go to an abnormal position while it remains tied will only lead to frustration in a child.



When determining the need to revise the frenum in infants and children, the following guidelines are suggested:

- A. The lingual attachment should not create a diastema (gap) between the lower front teeth
- B. The lingual attachment should not cause excessive force on the lower front teeth causing them to tip backward.
- C. The lingual attachment should not cause severe blanching of the gum tissue behind the lower front teeth.
- D. The lingual attachment should not prevent a normal swallowing pattern. The tongue should be able to lick the lips and allow the tongue to clean the tooth surfaces after eating.
- E. The lingual attachment should not prevent a normal swallowing pattern. The tongue should easily touch the roof of the mouth.
- F. The lingual attachment should not cause abrasion to the underside of the tongue.
- G. An abnormal lingual attachment can interfere with certain eating pleasures.
- H. Certain Social Activities (Importance and concerns here are under reported and under expressed!)
- I. Does it affect speech?

Common classifications for newborns



Severe anterior tongue ties and revision

Posterior or submucosal tongue tie and revision

* Kotlow Classification of Tongue-ties when teeth present: (Based on distance of the insertion of the lingual frenum to the tip of the tongue)



Normal

Class I (mild)

Class II (Moderate)

Class III (Severe)

Class IV (Complete)

Treatment of the revision using the ER: YAG laser in infants and older individuals



Pretreatment lack of mobility

Frenum revised

Placing a dissolvable suture

Post-operative results

Treatment is relatively simple. The procedure requires a little numbing followed by a revision with the laser. Post-operative discomfort is usually limited to a few hours after the numbing has disappeared. In most cases, Tylenol or a similar discomfort relieving medication is all that is required. The laser is a much kinder method of revision, unlike electrosurgery, which is actually a burn and the scalpel which cuts deeper than needed. There is little damage to adjacent tissue when using the laser, therefore healing is quicker and less post-operative discomfort occurs. In reality, the procedure is as simple as placing a filling. After treatment in older infants and children, avoid giving your child acidic liquids such as apple juice for a few days and hard foods which may irritate the area. A small white patch may develop at the revision site, which is normal and is not an infection. Rinsing the mouth with warm salt water or an over the counter peroxide rinse (Peroxyl) will assist healing the area. A post-operative follow-up appointment is necessary in one week. It is important to exercise the tongue daily to prevent reattachment.

* Kotlow, L. Ankyloglossia (tongue-tie a diagnostic and treatment quandary); Quintessence International 1999;30(4) 259-26

* Kotlow, L: Journal of Pediatric Dental Care Oral Diagnosis of Abnormal frenum attachments in neonates and infants Vol.10 no.3 October 2004

*Kotlow, L: Journal of the Academy of Laser Dentistry 2004 vol12 issue 3 Using the Erbium: YAG Laser to correct abnormal lingual frenum attachments in newborns