FREIN DE LANGUE ET ALLAITEMENT

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1e octobre 2018

Journée des professionnels

FREIN DE LANGUE ET ALLAITEMENT

À la fin de la présentation, vous saurez:

1. Énumérer les différents types d’ankyloglossie
2. Décrire les éléments pertinents de l'histoire et de l'examen
3. Exposer les recommandations pré- et post-frénotomie

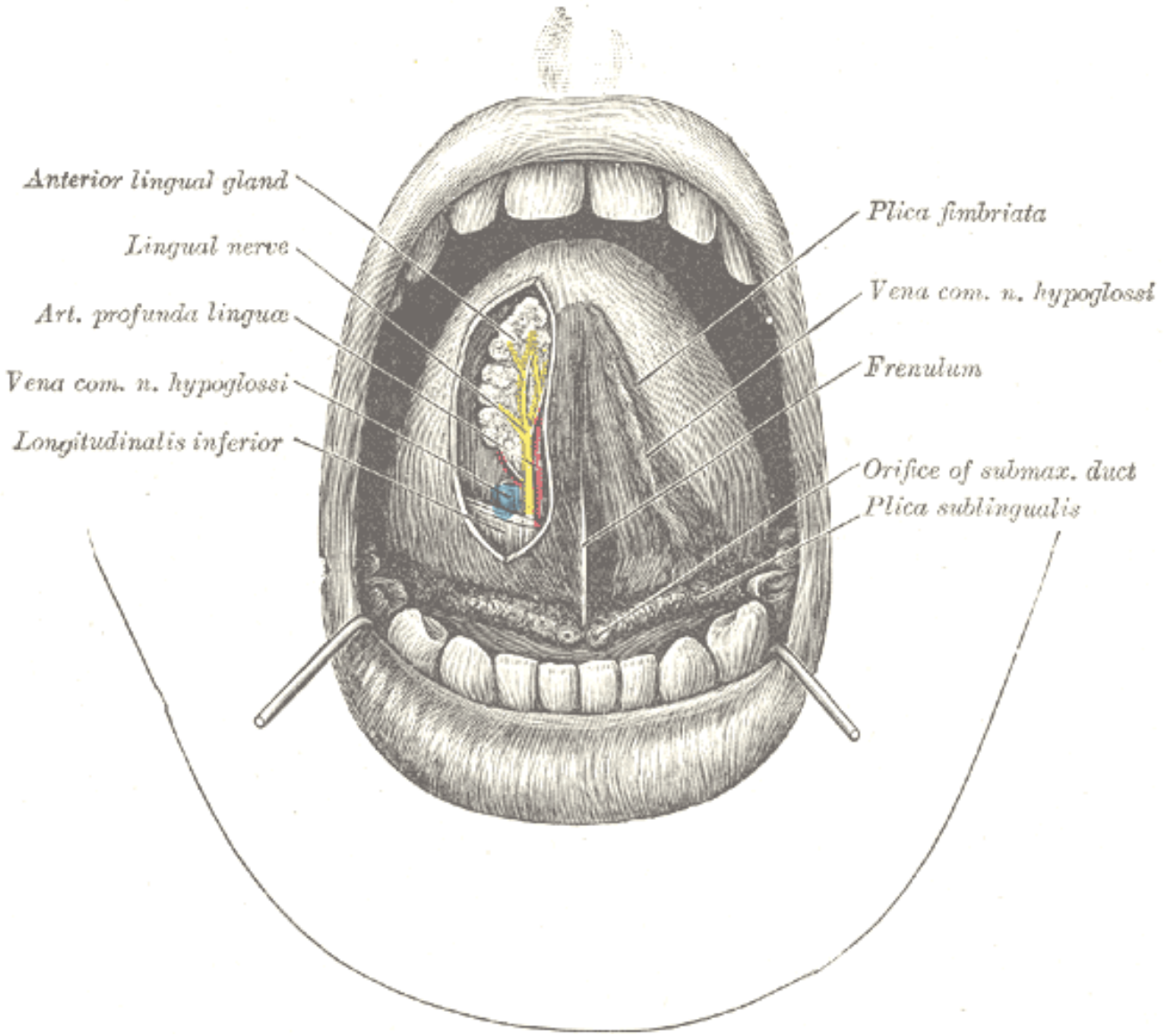
PLAN

1. Définition, anatomie et épidémiologie
2. Classifications
3. Impacts de l’ankyloglossie
4. Indications de frénotomie
5. Technique de frénotomie
6. Soins post frénotomie
7. Complications post frénotomie
8. Revue de littérature
9. Quelques cas...

ANKYLOGLOSSIE - DÉFINITION

- Anomalie congénitale où un frein lingual est trop court ou trop rigide ainsi restreignant la mobilité de la langue
- Peut être associée à d'autres anomalies de la ligne médiane
- Due à une apoptose insuffisante lors de la différentiation de la langue et du plancher de la bouche en prénatal

ANATOMIE


Anterior lingual gland
Lingual nerve
Art. profunda linguæ
Vena com. n. hypoglossi
Longitudinalis inferior
Plica fimbriata
Vena com. n. hypoglossi
Frenulum
Orifice of submax. duct
Plica sublingualis

ÉPIDÉMIOLOGIE

- Incidence <1% à 10%
- Ratio 2.6 garçon : 1 fille
- Tendance familiale
- Outils d’évaluation

OUTILS D'ÉVALUATION

NEONATAL TONGUE SCREENING TEST
Lingual Frenulum Protocol with Scores for Infants
Martinelli, 2015

Name: _____

Birthdate: _____/_____/_____ **Examination Date:** _____/_____/_____

1. Lip posture at rest


( ) closed (0)


( ) half-open (1)


( ) open (1)

2. Tongue posture during crying


( ) midline (0)


( ) elevated (0)


( ) midline with lateral elevation (2)


( ) apex of the tongue down with tongue lateral elevation (2)

3. Shape of the tongue apex when elevated during crying or elevation maneuver


( ) round (0)


( ) V-shaped (2)


( ) heart-shaped (3)

4. Lingual Frenulum


( ) visible


( ) not visible


( ) visible with maneuver*

*Maneuver: elevate and push back the tongue. If the frenulum is not visible, re-assessment is required at 30 days of life.

4.1. Frenulum thickness


( ) thin (0)


( ) thick (2)

4.2. Frenulum attachment to the tongue


( ) midline (0)


( ) between midline and apex (2)


( ) apex (3)

4.3. Frenulum attachment to the floor of the mouth


( ) visible from the sublingual caruncles (0)

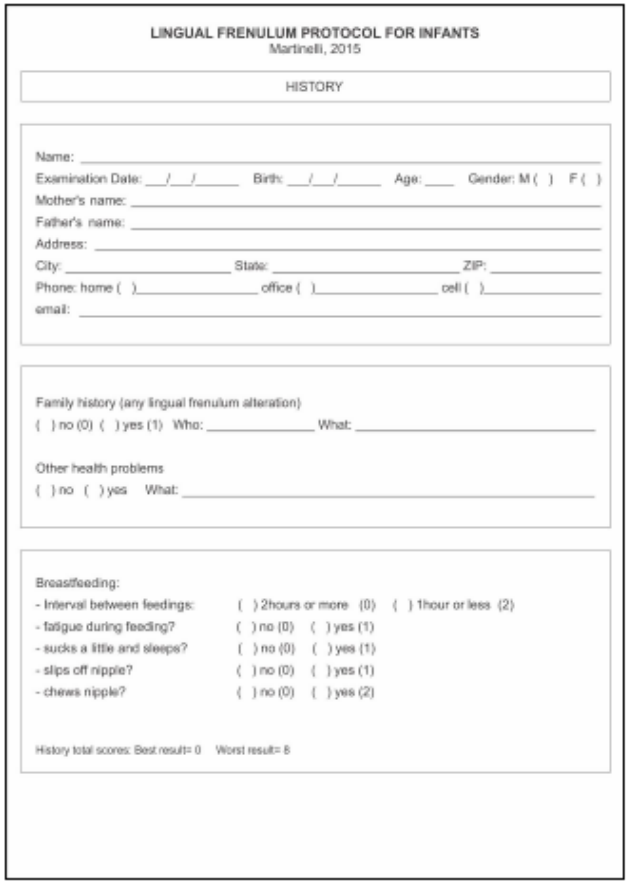

( ) visible from the inferior alveolar crest (1)

Score 0 to 4: normal ( )

Score 5 to 6: doubt ( ) **Re-assessment required in** _____/_____/_____

Score 7 or more: altered ( ) **Release of lingual frenulum is indicated.**

OUTILS D'ÉVALUATION



LINGUAL FRENULUM PROTOCOL FOR INFANTS
Martinelli, 2015

HISTORY

Name: _____
Examination Date: ___/___/_____ Birth: ___/___/_____ Age: ____ Gender: M ( ) F ( )
Mother's name: _____
Father's name: _____
Address: _____
City: _____ State: _____ ZIP: _____
Phone: home ( )_____ office ( )_____ cell ( )_____
email: _____

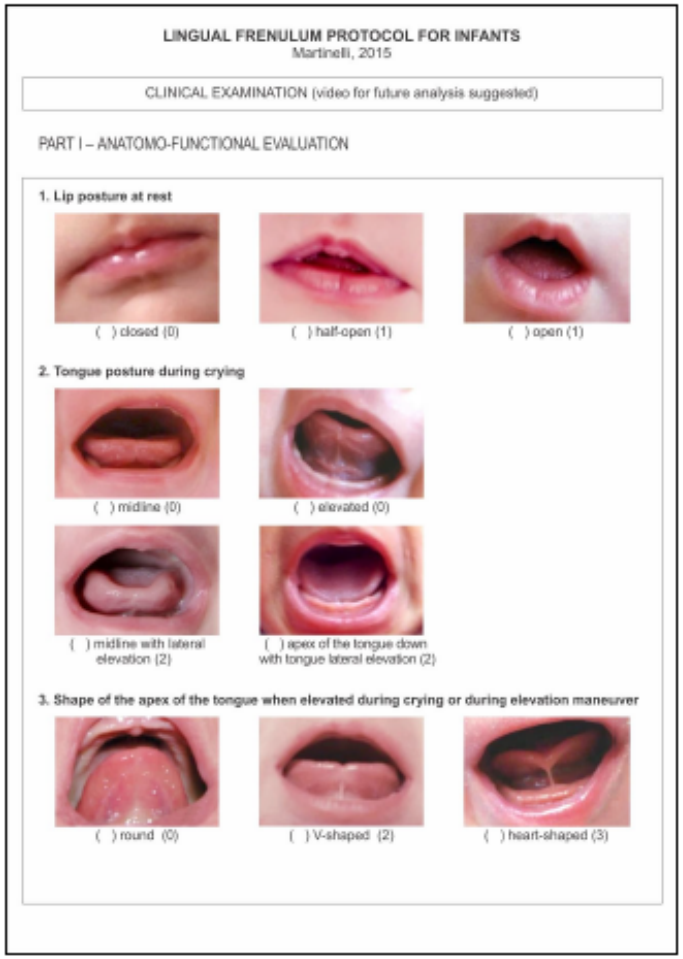
Family history (any lingual frenulum alteration)
( ) no (0) ( ) yes (1) Who: _____ What: _____

Other health problems
( ) no ( ) yes What: _____

Breastfeeding:
- Interval between feedings: ( ) 2hours or more (0) ( ) 1hour or less (2)
- fatigue during feeding? ( ) no (0) ( ) yes (1)
- sucks a little and sleeps? ( ) no (0) ( ) yes (1)
- slips off nipple? ( ) no (0) ( ) yes (1)
- chews nipple? ( ) no (0) ( ) yes (2)

History total scores: Best result= 0 Worst result= 8

OUTIL D'ÉVALUATION



LINGUAL FRENULUM PROTOCOL FOR INFANTS
Martinelli, 2015

CLINICAL EXAMINATION (video for future analysis suggested)

PART I – ANATOMO-FUNCTIONAL EVALUATION

1. Lip posture at rest

( ) closed (0) ( ) half-open (1) ( ) open (1)

2. Tongue posture during crying

( ) midline (0) ( ) elevated (0)

( ) midline with lateral elevation (2) ( ) apex of the tongue down with tongue lateral elevation (2)

3. Shape of the apex of the tongue when elevated during crying or during elevation maneuver

( ) round (0) ( ) V-shaped (2) ( ) heart-shaped (3)

OUTIL D'ÉVALUATION

LINGUAL FRENULUM PROTOCOL FOR INFANTS
Martinelli, 2015

4. Lingual Frenulum

( ) visible ( ) not visible ( ) visible with maneuver*

*Maneuver: elevate and push back the tongue.
If the frenulum is not visible, go to PART II (Non-nutritive sucking and nutritive sucking evaluations)

4.1. Frenulum thickness

( ) thin (0) ( ) thick (2)

4.2. Frenulum attachment to the tongue

( ) midline (0) ( ) between midline and apex (2) ( ) apex (3)

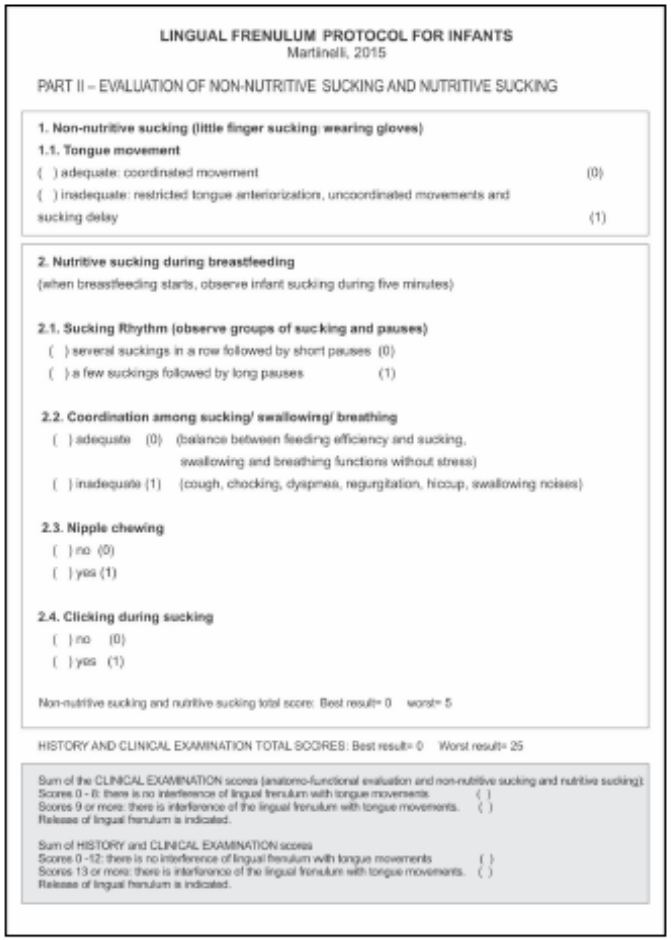
4.3. Frenulum attachment to the floor of the mouth

( ) visible from the sublingual caruncles (0) ( ) visible from the inferior alveolar crest (1)

Anatomo-functional evaluation total score (items 1,2, 3 and 4): Best result=0 Worst result=12

When the score of items 1, 2, 3 and 4 of the anatomo-functional evaluation is equal or greater than 7, the interference of the frenulum with the movements of the tongue may be considered.
Release of lingual frenulum is indicated.

OUTIL D'ÉVALUATION



LINGUAL FRENULUM PROTOCOL FOR INFANTS
Martinelli, 2015

PART II – EVALUATION OF NON-NUTRITIVE SUCKING AND NUTRITIVE SUCKING

1. Non-nutritive sucking (little finger sucking: wearing gloves)

1.1. Tongue movement

( ) adequate: coordinated movement (0)

( ) inadequate: restricted tongue anteriorization, uncoordinated movements and sucking delay (1)

2. Nutritive sucking during breastfeeding

(when breastfeeding starts, observe infant sucking during five minutes)

2.1. Sucking Rhythm (observe groups of sucking and pauses)

( ) several suckings in a row followed by short pauses (0)

( ) a few suckings followed by long pauses (1)

2.2. Coordination among sucking/ swallowing/ breathing

( ) adequate (0) (balance between feeding efficiency and sucking, swallowing and breathing functions without stress)

( ) inadequate (1) (cough, chocking, dyspnea, regurgitation, hiccup, swallowing noises)

2.3. Nipple chewing

( ) no (0)

( ) yes (1)

2.4. Clicking during sucking

( ) no (0)

( ) yes (1)

Non-nutritive sucking and nutritive sucking total score: Best result= 0 worst= 5

HISTORY AND CLINICAL EXAMINATION TOTAL SCORES: Best result= 0 Worst result= 25

Sum of the CLINICAL EXAMINATION scores (anatomo-functional evaluation and non-nutritive sucking and nutritive sucking):
Scores 0 - 8: there is no interference of lingual frenulum with tongue movements ( )
Scores 9 or more: there is interference of the lingual frenulum with tongue movements. ( )
Release of lingual frenulum is indicated.

Sum of HISTORY and CLINICAL EXAMINATION scores
Scores 0 -12: there is no interference of lingual frenulum with tongue movements ( )
Scores 13 or more: there is interference of the lingual frenulum with tongue movements. ( )
Release of lingual frenulum is indicated.

CLASSIFICATION

- Antérieur vs postérieur
- Classification du Dr Coryllos
- Autres restrictions de mobilité (ex. frein labial)

Dr Coryllos

FREIN DE LANGUE POSTÉRIEUR

IMPACT DE L’ANKYLOGLOSSIE

- Signes
- Symptômes
- Difficultés d’allaitement (25% vs 3%)
- Trouble d’élocution (et non développement du langage)
- Cessation précoce de l’allaitement
- Développement du palais
- Impact au niveau de la dentition

(positionnement et hygiène) et

buccal (douleur)

- Vie intime

SYMPTÔMES

- Douleur d’origine mécanique (pire au début du boire)
- Insuffisance de production lactée
- Gain de poids lent
- Incapacité chez l’enfant à ouvrir grand la bouche
- Incapacité à prendre le sein et à le maintenir en bouche (perte du sein)

SYMPTÔMES

- Clacage
- Plaies qui ne guérissent pas (facteur mécanique ou infection)
- Boires longs, inefficaces ou très fréquents
- Bébé qui avale beaucoup d’air
- Sensation de frottement de la langue
- Incapacité à faire certains sons ou à utiliser certains instruments de musique

SIGNES

- Lésions de pinçage ou plaies (mère)
- Gain de poids lent
- Frein membraneux restreignant la mobilité de la langue (extension, latéralisation, élévation)
- Langue en cœur
- Incapacité du bébé à prendre le sein, à le maintenir en bouche
- Peu d’ouverture de la bouche

SIGNES

- Clacage
- Palais peu arrondi
- Langue d’apparence courte, carrée ou épaissie, qui ne peut pointer
- Tremblements de la langue (fatigue)

PÉRIODES DIFFICILES

- Naissance
- Montée laiteuse
- 6 semaines
- 3 mois

TRAITEMENTS

- Évaluation par consultante en lactation (incluant une recherche d’autres causes)
- Orthophonie
- Orthodontie
- Frénotomie
- Frénuloplastie

FRÉNULOPLASTIE

INDICATIONS DE FRÉNOTOMIE

- Histoire de difficultés à l'allaitement
- Évaluation qui démontre une restriction de la mobilité de la langue
- S'assurer d'avoir bonne évaluation
- S'assurer d'éliminer les autres causes
- Qui fait l'évaluation? MD, infirmière, IBCLC, sage-femme
- Qui fait la procédure? MD, dentiste, sage-femme?

TECHNIQUE

- Laser ou ciseaux
- Écarteur
- Analgésie ou non (pas de benzocaïne!)

FRÉNOTOMIE - PROCÉDURE

QUAND?

- Ni trop tôt, ni trop tard...

SOINS POST FRÉNOTOMIE

- Chiro, ostéo (ou avant procédure)
- Exercices, massages
- Analgésie
- Suivi plaie 2 ou 3 jours après
- Stages de guérison des plaies

COMPLICATIONS POST FRÉNOTOMIE

- Douleur
- Saignement (2 cas sur 2000)
- Infection
- Cicatrisation
- Fermeture de la plaie
- Refus du sein
- Détérioration de la technique
- Persistance de technique inadéquate
- Blessures 2° à lacérations, glandes salivaires

REVUE DE LA LITTÉRATURE

- Peu d’études en allaitement
- Aucun produit / compagnie pharmaceutique

REVUE DE LA LITÉRATURE

- Étude prospective de 57 enfants avec difficultés d'allaitement et ankyloglossie assignés de façon aléatoire à 48 heures de soutien intensif par une consultante en lactation vs frénotomie
- Amélioration chez tous les enfants qui ont eu frénotomie (malgré besoin de téterelle chez un) vs un seul dans le groupe de soutien
- Frénotomie offerte à ce 2è groupe; tous ont accepté et tous les bébés (sauf 1) se sont alors améliorés
- HOGAN, WESTCOTT, GRIFFITHS 2005

J. Paediatr. Child Health (2005) 41, 246–250

Randomized, controlled trial of division of tongue-tie in infants with feeding problems

Monica Hogan, Carolyn Westcott and Mervyn Griffiths

Princess Anne Hospital and General Hospital, Southampton, UK

Objective: To determine whether, in infants with a tongue-tie and a feeding problem, the current medical treatment (referral to a lactation consultant) or immediate division works best and enables the infants to feed normally.

Methods: Between March and July 2002, all the babies in the district of Southampton with tongue-ties were followed in order to see if they had any feeding problems. If they developed problems, the mothers gave written consent and were enrolled in an ethics committee approved, randomized, controlled trial, comparing 48 h of intensive lactation consultant support (control) with immediate division.

Results: A total of 201 babies had tongue-tie, of whom 88 had breast-feeding or bottle-feeding problems. Thirty-one were not enrolled, so 57 were randomized. Of the 29 controls, one improved (3%) and breast-fed for 8 months, but 28 did not. At 48 h, these 28 were offered division, which all accepted, and 27 improved (96%) and fed normally. Of the 28 babies who had immediate division, 27 improved and fed normally but one remained on a nipple shield ($P < 0.001$). Twenty-four mothers breast-fed for 4 months (24/40, 60%). Overall, division of the tongue-tie babies resulted in improved feeding in 54/57 (95%) babies.

Conclusions: This randomized, controlled trial has clearly shown that tongue-ties can affect feeding and that division is safe, successful and improved feeding for mother and baby significantly better than the intensive skilled support of a lactation consultant.

Key words: ankyloglossia; bottle-feeding; breast-feeding; lactation consultant; tongue-tie.

Before the 1950s, tongue-ties were divided routinely.[1–4] Recent textbooks and most British paediatricians state that tongue-ties do not affect infant feeding or speech. Their advice is to see a lactation consultant or infant feeding specialist, or simply abandon breast-feeding in favour of artificial feeding.[5–12] However, the recent major trend to encourage breast-feeding[13] has produced some anecdotal papers,[14–17] three larger studies[18–20] and one prospective controlled study[21] suggesting that tongue-ties can affect breast-feeding. The authors' experience suggested that a subgroup of babies with tongue-ties appeared to exist who had problems with feeding. With the approval of the Local Research Ethics Committee, a randomized, controlled trial of tongue-tie division in babies with feeding problems, either breast- or bottle-feeding was undertaken.

METHODS

Between 1 March and 31 July 2002, all babies born in the Princess Anne Hospital, Southampton, and Hythe, Romsey and Lymington Birth Centres were actively inspected for a tongue-tie. The inspection took place at delivery, during the first newborn check or subsequently at the daily check. The people responsible for the postnatal checks (midwives, neonatal nurse practitioners and junior doctors) were formally taught what a tongue-tie looked and felt like, using a finger to examine the mouth. They were given an explanation of the purpose of the trial and a laminated sheet of six photographs of infants with tongue-ties (Fig. 1) and asked to inform Lactation Consultants Carolyn Westcott (CW) or Monica Hogan (MH) if a tongue-tie was found. The mothers were informed of the finding. Most mothers of babies with tongue-ties were seen before discharge by CW or MH and invited to enter the study, to which they gave written consent. A few mothers left hospital very soon after delivery and were seen within a few days. Initially, routine breast-feeding or artificial-feeding advice was given by the mother's own midwife or health visitor in the usual way. In addition, all the mothers in the study were monitored weekly for 4 weeks to assess feeding. If feeding problems possibly due to the tongue-tie were recognized, the babies were seen by CW or MH for a thorough assessment of the feeding problem, examination of the baby and confirmation of the presence of a tongue-tie. If the mother consented, and there was a feeding problem and a tongue-tie, in an attempt to alleviate the symptoms and improve the feeding, the babies were randomized to either intensive support, advice and help from the lactation consultant (control), or immediate division of the tongue-tie (intervention).

In the breast-feeding control group, advice and help was given with positioning and attachment, and a plan of care was made with the mother. If this support and plan of care failed to produce any improvement after 48 h, division was offered to these mothers. The bottle-feeding mothers were given advice on different teats and positioning when feeding. The mothers themselves gauged any change in the original feeding problems.

The randomization group was determined by opening a sealed envelope which had been previously prepared by an assistant who was not part of the trial.

Definition

The percentage of tongue-tie was gauged by eye, ranging from 100% (i.e. to the tip) to 25%.

Division

The authors performed outpatient division of the tongue-tie in the following standard fashion.[18,22] The baby was separated

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ADC

Congenital anomalies

Tongue tie

D M B Hall, M J Renfrew

Common problem or old wives' tale?

The resurgence of interest in breast feeding has been accompanied by a lively debate about the significance of "tongue tie" or ankyloglossia. Symptoms attributed to tongue tie include nipple pain and trauma, difficulty in the baby attaching to the breast, frequent feeding, and uncoordinated sucking. These problems may result in the mother deciding to terminate breast feeding prematurely, slow weight gain for the baby, and even hypernatraemic dehydration. Speech defects have also been attributed to tongue tie.. Strong views have been expressed by many eminent authors on the subject (box 1).

This paper reviews what is known about tongue movements and the significance and treatment of tongue tie. It is based on two literature reviews, one conducted on behalf of NICE[1] "by one of us (MR) and updated by further searches of published and grey literature and conference abstracts. The publications reviewed for this paper are summarised in table 1.

As our review found little high quality objective evidence, we begin by making explicit the personal experience and bias with which we commenced the review. One of the authors (MR) felt that tongue tie is an important issue—she experienced pain for many weeks while breast feeding her first child, who exhibited features said to be typical of tongue tie, and has since discussed this issue widely with lactation specialists and women having similar problems. The other (DH) accepted that ankyloglossia occurs in dysmorphic infants[2–4] and occasionally in otherwise normal babies,[5] but was sceptical about the high prevalence of the condition now being described by several authors.

ANATOMY AND PHYSIOLOGY

The tongue is a highly mobile organ made up of longitudinal, horizontal, vertical, and transverse intrinsic muscle bundles. The extrinsic muscles are the fan-like genioglossus which is inserted into the medial part of the tongue and the styloglossus and hyoglossus into the lateral portions. The sub-lingual frenulum is a fold of mucosa connecting the midline of the inferior surface of the tongue to the floor of the mouth. Tongue tie is the name given to the condition arising when the frenulum is unusually thick, tight, or short. There are many variations and differing degrees of severity (fig 1).

The movements of the tongue during infant feeding have been studied by cine-radiography and more recently by ultrasound.[6–8] Ultrasound reveals some similarities between the movements made by the baby when either breast or bottle feeding,[6] but also some important differences.[7–8] The tongue is projected further forward in breast feeding[6] and the human nipple elongates during each suck in a way that an artificial teat cannot do.[6] During feeding, the artificial teat, or the nipple together with some breast tissue, is held fully in the mouth with the tongue covering the lower gum ridge. The nipple is protected from damage and pain at the back of the baby's mouth.[6] The baby's lower jaw is then elevated, compressing the artificial teat, or the breast immediately behind the nipple, while the front of the tongue moves up to aid the expression of milk. In breast feeding, this is by compression of the milk ducts under the areola. A wave of upward movement of the medial part of the tongue progresses backwards, and the expression of the milk is further facilitated by negative pressure generated by downward movement of the back of the tongue and the lower jaw and, in breast feeding, by the active expulsion of milk once the let down occurs.

In coordinated feeding, the sucking, swallowing and breathing movements follow in a 1:1:1 sequence. This can take several days to become established in healthy full term infants. In preterm infants and in some term infants a variety of poorly coordinated feeding movement patterns are observed and sometimes persist.[9] Antenatal

Box 1: Quotes from the past

"In observing a very large series of newborn babies, we have never seen a tongue that had to be clipped" (McEnery and Goines, Chicago, 1940)

"While tongue tie is not nearly as common as members of the public believe, nevertheless a genuine case is occasionally seen and the condition is not entirely mythical although surrounded by an aura of superstition and old wives' tales" (Cullum, UK, 1959)

"Tongue tie…has been described as a myth of hoary antiquity…but it is probably wrong to suggest that it never causes symptoms. A case is reported in which a tight frenum ruptured spontaneously during feeding…this baby remained a slow feeder and…(had not been) disabled by his tongue tie" (Smithells, London, 1959)

"Tongue tie is a rare but definite congenital deformity" (Browne, London, 1959)

"Tongue tie is a rare cause of dysarthria, though it is often blamed for slow speech development…most patients who have real limitation of movement as a result of tongue tie have a history of difficult milk feeding" (Ingram, Edinburgh, 1968)

"I have never seen feeding difficulties in the first year resulting from tongue tie and I doubt whether it is ever necessary to carry out an operation on it till the age of two or three…There are still doctors who cut the frenulum in the newborn period. This is always wrong" (Illingworth, Sheffield, 1982)

"Tongue tie where the tongue is forked can, very rarely, add to the baby's difficulties in taking the breast with poor protractility" (Gunther, UK, 1970)

"To some extent tongue tie is normal in every newborn baby and it should rarely interfere with either sucking or later speech development" (Davies *et al*, UK, 1972)

"True tongue tie is a very rare condition. This condition has been over-diagnosed in the past because of the failure to recognise that the frenum passing from the tongue to the floor of the mouth is normally short in the newborn…Only in infants with severe limitation of the tongue movement and inability to suck is division of the frenum indicated" (Turner, Douglas, and Cockburn, UK, 1988)

ADC

-Revue de litérature

-Les histoires de cas semblent indiquer qu'une ankyloglossie peut nuire à l'allaitement chez certains bébés

-Frénotomie : procédure à faible risque, devrait être faite par gens compétents

-Justifiée seulement si on pense améliorer l'allaitement ou un autre problème

ADC

-Prévalence d’ankyloglossie significative inconnue

-Hérédité inconnue

-Pas d’indication de dépistage si aucun problème

-Dx basé sur observation plus que sur E/P

-Attention aux 2-3 premiers jours

-Besoin de plus d’études...

ARCH OTOLARYNGO 2000

ORIGINAL ARTICLE

Ankyloglossia

Incidence and Associated Feeding Difficulties

Anna H. Messner, MD; M. Lauren Lalakea, MD; Janelle Aby, MD; James Macmahon, MD; Ellen Batir, MS, PNP

Objectives: To determine the incidence of ankyloglossia (tongue-tie) in the well-baby population, and to determine whether patients with ankyloglossia experience breastfeeding difficulties.

Design: Prospective controlled study.

Setting: Tertiary care children's hospital.

Patients: A total of 1041 neonates in the well-baby nursery were screened for ankyloglossia. Those positively identified were invited to participate in the study. Mothers of newborns with ankyloglossia and mothers of a matched control group of unaffected newborns were contacted by telephone on a monthly basis for 6 months after their children were discharged from the hospital to determine the presence of breastfeeding difficulties.

Main Outcome Measures: Incidence of ankyloglossia, percentage of infants successfully breastfed, and incidence of breastfeeding difficulties.

Results: Fifty newborns were identified with ankyloglossia, for an incidence of 4.8% The male-female ratio was 2.6:1.0. Of the 36 mothers of affected infants who were followed up and who intended to breastfeed, 30 (83%) successfully breastfed their infants for at least 2 months, compared with 33 (92%) of the 36 mothers of infants in the matched control group ($P = .20$). Breastfeeding difficulties were experienced by 9 (25%) of the mothers of infants with ankyloglossia compared with 1 (3%) of the control mothers ($P<.01$).

Conclusion: Ankyloglossia, which is a relatively common finding in the newborn population, adversely affects breastfeeding in selected infants.

Arch Otolaryngol Head Neck Surg. 2000;126:36-39

From the Division of Otolaryngology–Head and Neck Surgery (Drs Messner and Lalakea) and the Department of Pediatrics (Drs Messner, Aby, and Macmahon), Stanford University, Palo Alto, Calif; the Division of Otolaryngology–Head and Neck Surgery, Santa Clara Valley Medical Center, San Jose, Calif (Dr Lalakea); and the Division of Otolaryngology–Head and Neck Surgery, Lucile Packard Children's Hospital at Stanford (Drs Messner, Aby, and Macmahon and Ms Batir).

ANKYLOGLOSSIA, commonly known as tongue-tie, is a congenital oral anomaly characterized by an abnormally short lingual frenulum (**Figure**). Although the clinical significance of ankyloglossia is controversial, many lactation consultants and some physicians believe that tongue-tie can make breastfeeding difficult, causing sore nipples, poor infant weight gain, and early weaning in some infants with this condition.[1-3] With the increased popularity of breastfeeding in the last decade, there has been a resurgence of interest in ankyloglossia as it relates to infant feeding. Articles published to date, however, have been in the form of case reports and case series.[1,2,4-6] The purpose of this study was to (1) determine the incidence of tongue-tie in the well-baby population and (2) determine the incidence and nature of feeding problems in infants with tongue-tie compared with matched control infants.

RESULTS

Fifty of the 1041 newborns screened were found to have ankyloglossia, yielding an incidence rate of 4.8%. Thirty-six of the affected newborns were male, and 14 were female (male-female ratio, 2.6:1.0).

Thirty-six mothers of affected infants and 36 mothers of control infants completed the feeding portion of the study, with follow-up ranging from 2 to 6 months. The demographic characteristics of the ankyloglossia group, as well as ankyloglossia grade are shown in the **Table**. The majority of affected infants were graded as having mild ankyloglossia, with thin frenula. No cases of severe ankyloglossia were identified.

Thirty (83%) of 36 infants with ankyloglossia were breastfed for at least 2 months, compared with 33 (92%) of 36 control infants ($P = .29$). Eight mothers of infants with ankyloglossia experienced sore nipples, with the soreness lasting longer than 6 weeks in 4 mothers. Similarly, 7 of

Messner

Incidence 4.8%

Garçon : fille 2.6 : 1

83% allaitement ad 2 mois vs 92% dans groupe témoin

Difficultés d'allaitement chez 25% des mères vs 3% du groupe témoin

LARYNGOSCOPE

The Laryngoscope

Breastfeeding Improvement Following Tongue-Tie and Lip-Tie Release: A Prospective Cohort Study

Bobak A. Ghaheri, MD; Melissa Cole, IBCLC; Sarah C. Fausel, BA; Maria Chuop, BS; Jess C. Mace, MPH, CCRP

Objectives/Hypothesis: Numerous symptoms may arise that prevent mother-infant dyads from maintaining desired breastfeeding intervals. Investigations into treatments that positively influence breastfeeding outcomes allow for improved patient counseling for treatment decisions to optimize breastfeeding quality. This investigation aimed to determine the impact of surgical tongue-tie/lip-tie release on breastfeeding impairment.

Study Design: Prospective, cohort study from June 2014 to April 2015 in a private practice setting.

Methods: Study participants consisted of breastfeeding mother-infant (0–12 weeks of age) dyads with untreated ankyloglossia and/or tethered maxillary labial frenula who completed preoperative, 1 week, and 1 month postoperative surveys consisting of the Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF), visual analog scale (VAS) for nipple pain severity, and the revised Infant Gastroesophageal Reflux Questionnaire (I-GERQ-R). Breastmilk intake was measured preoperatively and 1 week postoperatively.

Results: A total of 237 dyads were enrolled after self-electing laser lingual frenotomy and/or maxillary labial frenectomy. Isolated posterior tongue-tie was identified in 78% of infants. Significant postoperative improvements were reported between mean preoperative scores compared to 1 week and 1 month scores of the BSES-SF ($F_{(2)} = 212.3$; $P < .001$), the I-GERQ-R ($F_{(2)} = 85.3$; $P < .001$), and VAS pain scale ($F_{(2)} = 259.8$; $P < .001$). Average breastmilk intake improved 159% from 3.0 (2.9) to 4.9 (4.5) mL/min ($P < .001$).

Conclusions: Surgical release of tongue-tie/lip-tie results in significant improvement in breastfeeding outcomes. Improvements occur early (1 week postoperatively) and continue to improve through 1 month postoperatively. Improvements were demonstrated in both infants with classic anterior tongue-tie and less obvious posterior tongue-tie. This study identifies a previously under-recognized patient population that may benefit from surgical intervention if abnormal breastfeeding symptoms exist.

Key Words: Breastfeeding, ankyloglossia, patient outcome assessment, outcome assessment (healthcare), visual analog scale, gastroesophageal reflux.

Level of Evidence: 2c

Laryngoscope, 00:000–000, 2016

INTRODUCTION

The rate of breastfeeding in the United States has been rising over the last 20 years with the increased emphasis on improved health outcomes in breastfed children and the recent impetus for hospitals to meet care standards established by the Baby Friendly Hospital Initiative.[1] Previous research has demonstrated increased breastfeeding failure rate in mothers who intended to breastfeed in the hospital setting.[2] The causes of breastfeeding cessation are multifactorial and include poor weight gain necessitating supplementation, poor latch, maternal nipple pain, and structural restrictions like ankyloglossia.

Ankyloglossia (either classic anterior tongue-tie or submucosal restriction)[3] and a tethered superior labial frenum (upper lip-tie) cause altered latch and sucking mechanics. The suckling process is complex and multifactorial, and dysfunction may cause diverse signs and symptoms in the breastfeeding dyad. Latch difficulties and suboptimal sucking mechanics may result in inefficient milk transfer, poor weight gain, low milk supply, nipple pain and trauma.

Recently, the Agency for Healthcare Research and Quality (AHRQ) evaluated the existing body of evidence regarding lingual frenotomy and maxillary labial frenectomy, concluding that the strength of outcomes-based evidence supporting those procedures was "generally low to insufficient."[4] The insufficient research quality is largely due to the lack of randomized controlled trials. Previous studies have examined the impact of lingual frenotomy on maternal pain, improvement in latch

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DOI: 10.1002/lary.26306

Ghaheri

237 dyades qui ont choisi frénotomie

Amélioration a/n allaitement, douleur et transfert de lait à 1 semaine, maintenu à 1 mois

Amir, James, Beatty

J. Paediatr. Child Health (2005) 41, 243–245

Review of tongue-tie release at a tertiary maternity hospital

Lisa Helen Amir,[1,2] Jennifer Patricia James[1] and Joanna Beatty[1]

[1]Breastfeeding Education and Support Services, Royal Women's Hospital and [2]Key Centre for Women's Health in Society, University of Melbourne, Carlton, Victoria, Australia

Objective: To review the first 12 months of assessment and release of lingual frenulum (frenotomy) at a breast-feeding clinic in a tertiary maternity hospital (August 2002 to end of July 2003) and to report on the breast-feeding outcomes and parental satisfaction.

Methods: A structured telephone interview was conducted with the mother at least 3 months after the assessment. Data were collected about the presenting problem and the effect of release of the tongue-tie (if performed). Parents were also asked about their satisfaction with the procedure and of problems following the release.

Results: Sixty-six babies were assessed in 12 months. If infants were assessed as: (I) having impaired lingual function (using the Hazelbaker assessment tool for lingual frenulum function); (II) the frenulum visualized to be a thin membrane; and (III) the parent(s) gave informed consent, the frenulum was released. Initial and follow-up data are available on 46 infants. Infants had a mean age of 18 days (range 3–98), 63% were male infants and most had difficulties with attachment to the breast. Frenotomy was performed on 35 infants and breast-feeding improved in 83%. Parents reported high levels of satisfaction with the frenotomy procedure and no complications were reported.

Conclusion: Frenotomy is a safe and easy procedure. Infants with a significant tongue-tie that is interfering with breast-feeding have shown an improvement with breast-feeding following frenotomy.

Key words: ankyloglossia; breast-feeding; frenotomy; lingual frenulum; tongue-tie.

Tongue-tie, or ankyloglossia, is a congenital oral anomaly in which the lingual frenulum is abnormally short and may therefore restrict mobility of the tongue tip.[1] Tongue-tie is a controversial issue among paediatricians,[2–4] however, lactation specialists identify tongue-tie as a potential cause of breast-feeding problems.[5] Many case studies and case series of infants experiencing problems, such as ineffective latch, painful attachment, poor weight gain have been published in the breast-feeding literature.[5–9] A survey of North American paediatricians, otolaryngologists, speech pathologists and lactation consultants concluded that there was little consensus regarding the significance of ankyloglossia or its management.[10] Paediatricians were less likely to believe that tongue-tie causes symptoms than their colleagues.[10]

As there is no generally agreed definition of what constitutes a problematic tongue-tie, a quantitative instrument has been developed, the Hazelbaker assessment tool for lingual frenulum function (HATLFF), to assess the likeliness of tongue-tie to impact negatively on breast-feeding (Table 1).[11] The HATLFF includes five appearance items, such as length of lingual frenulum (>1 cm, 1 cm, <1 cm) and seven function items, such as extension of the tongue (tip over the lower lip, tip over lower gum only, neither). Ballard and colleagues have explained how to score each item.[12] Significant ankyloglossia is diagnosed when appearance score total is eight or less and/or function score total is 11 or less.[12]

The reported prevalence of tongue-tie varies widely, ranging from 0.02 to 4.8%.[1] There is a lack of information about the natural history of this condition.[1] Ballard and colleagues examined 2763 breast-feeding inpatient infants on the first or second days of life, using the HATLFF,[11] and diagnosed 88 infants as having ankyloglossia, a prevalence of 3.2%.[12] Of the infants presenting with breast-feeding problems to an outpatient clinic, 35 of 273 infants (12.8%) of the outpatients were diagnosed as having ankyloglossia.[12]

A randomized controlled trial in Southampton, UK, in 2002, identified infants with a tongue-tie who were experiencing breast-feeding problems.[13] Fifty-seven infants were randomly assigned to have immediate frenotomy by the lactation consultant/infant feeding specialist or to receive help with positioning and attachment by the lactation consultant and review in 48 h. They found that releasing the tongue-tie improved feeding in 27 out of 28 infants, compared to one out of 29 who improved without release.[13]

Frenotomy can easily be performed on infants younger than 3 months without any anaesthesia. The infant is placed on an examination table with good lighting, and restrained by an assistant holding the infant's flexed elbows close to the face. Some operators use a grooved retractor,[12] but our practice is to use the index finger and thumb of the non-dominant hand to stabilize and enable visualization of the lingual frenulum.[1] The frenulum is divided by 2–3 mm with small sterile scissors, adjacent to the tongue taking care to avoid any vascular tissue. There is usually no blood loss or minimal ooze. The infant often cries while being restrained but usually ceases as soon as they are comforted after the procedure. They are encouraged to breast-feed immediately.[1]

An English paediatric surgeon reviewed frenotomies undertaken in his clinic without anaesthetic (1999–2001); of 144 infants, there was no bleeding in 64, 'a few drops' in 70 and 10 lost 'a small amount of blood'.[14] He concluded that 'Division is easy, virtually pain-free, safe and usually successful'.[14,15] The recent review by Lalakea and Messner concludes that frenotomy is indicated when an infant is having breast-feeding difficulties, and that it is a minor procedure that can be performed quickly on infants up to

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Amir, James, Beatty

Évaluation amélioration post frénotomie, satisfaction des parents et complications

Sécuritaire

JOURNAL OF PEDIATRIC SURGEGY

Journal of Pediatric Surgery (2006) 41, 1598–1600

ELSEVIER

Journal of Pediatric Surgery

www.elsevier.com/locate/jpedsurg

Immediate nipple pain relief after frenotomy in breast-fed infants with ankyloglossia: a randomized, prospective study

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Index words:
Tongue-tie;
Breast-feeding difficulties;
Nipple pain

Abstract

Purpose: Ankyloglossia ("tongue-tie") occurs in nearly 5% of neonates, but its clinical significance relating to breast-feeding difficulties is controversial. We tested the hypothesis that in infants with ankyloglossia referred because of breast-feeding difficulties, frenotomy alleviates the symptoms.

Methods: Twenty-five mothers of healthy infants with ankyloglossia were recruited because of sore nipples. Infants were randomized to either of 2 sequences: (1) frenotomy, breast-feeding, sham, breast-feeding (n = 14) or (2) sham, breast-feeding, frenotomy, breast-feeding (n = 11). The mothers as well as all personnel taking care of the child after each sham or frenotomy procedure were masked as to the study sequence. In every sequence, and after each sham or frenotomy procedure, a standardized latch score and pain score were obtained from the mother.

Results: There was a significant decrease in pain score after frenotomy than after sham ($P = .001$). There was also a nearly significant improvement in latch after the frenotomy in these mothers ($P = .06$).

Conclusion: Frenotomy appears to alleviate nipple pain immediately after frenotomy. We speculate that ankyloglossia plays a significant role in early breast-feeding difficulties, and that frenotomy is an effective therapy for these difficulties.

Ankyloglossia, also referred to as tongue-tie, is a congenital anomaly of the tongue characterized by short and sometimes anteriorly inserted frenulum. Ankyloglossia occurs in approximately 5% of newborn infants, at a male-to-female ratio of 2.6:1 [1]. The clinical significance of ankyloglossia is a matter of controversy, particularly as it relates to breast-feeding difficulties; sore nipples [1], poor infant weight gain [2], neonatal dehydration [3], and shortened breast-feeding duration have been reported as possible consequences of ankyloglossia [2,4]. A recent review article on the topic, published under the auspices of the Committee on Breast feeding of the American Academy of Pediatrics, expressed the personal opinion of its author, that frenotomy "is safe and effective" in minimizing breast-feeding difficulties created by symptomatic tongue-tie [5]. A few articles have reported that symptoms of ankyloglossia

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Dollberg

Frénotomie, allaitement, fausse procédure, allaitement VS fausse procédure, allaitement, frénotomie, allaitement

Meilleure diminution de la douleur post frénotomie

GEDDES et al

PEDIATRICS
OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Frenulotomy for Breastfeeding Infants With Ankyloglossia: Effect on Milk Removal and Sucking Mechanism as Imaged by Ultrasound

Donna T. Geddes, Diana B. Langton, Ian Gollow, Lorili A. Jacobs, Peter E. Hartmann and Karen Simmer

Pediatrics 2008;122;e188-e194; originally published online Jun 23, 2008;
DOI: 10.1542/peds.2007-2553

ARTICLE

Frenulotomy for Breastfeeding Infants With Ankyloglossia: Effect on Milk Removal and Sucking Mechanism as Imaged by Ultrasound

Donna T. Geddes, PhD[a], Diana B. Langton, BSc, IBCLC[b], Ian Gollow, MBBS, FRACS[c], Lorill A. Jacobs, MSc[d], Peter E. Hartmann, PhD[a], Karen Simmer, MBBS, FRCPH, PhD[e]

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The authors have indicated they have no financial relationships relevant to this article to disclose.

What's Known on This Subject

Frenulotomy seems to improve feeding for infants experiencing difficulties; however, it remains controversial, mainly because a proportion of infants with ankyloglossia are able to feed successfully.

What This Study Adds

This study clarifies that frenulotomy of infants with ankyloglossia changes the tongue movement of breastfeeding infants and improves feeding evidenced by increased milk transfer and feeding efficiency and decreased maternal perception of pain.

ABSTRACT

OBJECTIVE. There is evidence that infants with ankyloglossia can experience breastfeeding difficulties including poor attachment to the breast, suboptimal weight gain, and maternal nipple pain, which may lead to early weaning of the infant. No studies have investigated the cause of these breastfeeding difficulties. The objective of this study was to determine the effectiveness of frenulotomy in infants experiencing persistent breastfeeding difficulties despite professional assistance by measuring changes in milk transfer and tongue movement during breastfeeding before and after frenulotomy.

PATIENTS AND METHODS. Twenty-four mother-infant dyads (infant age: 33 ± 28 days) that were experiencing persistent breastfeeding difficulties despite receiving professional advice were recruited. Submental ultrasound scans (Acuson XP10) of the oral cavity were performed both before and ≥7 days after frenulotomy. Milk transfer, pain, and LATCH (latch, audible swallowing, type of nipple, comfort, and hold) scores were recorded before and after frenulotomy. Infant milk intake was measured by using the test-weigh method.

RESULTS. For all of the infants, milk intake, milk-transfer rate, LATCH score, and maternal pain scores improved significantly postfrenulotomy. Two groups of infants were identified on ultrasound. One group compressed the tip of the nipple, and the other compressed the base of the nipple with the tongue. These features either resolved or lessened in all except 1 infant after frenulotomy.

CONCLUSIONS. Infants with ankyloglossia experiencing persistent breastfeeding difficulties showed less compression of the nipple by the tongue postfrenulotomy, which was associated with improved breastfeeding defined as better attachment, increased milk transfer, and less maternal pain. In the assessment of breastfeeding difficulties, ankyloglossia should be considered as a potential cause. *Pediatrics* 2008;122:e188–e194

www.pediatrics.org/cgi/doi/10.1542/peds.2007-2553

doi:10.1542/peds.2007-2553

Key Words
ankyloglossia, tongue tie, frenulotomy, breastfeeding, ultrasound, feeding, lactation

Abbreviations
HSPJ—hard/soft palate junction
NHSPJD—nipple to the hard/soft palate junction distance
LATCH—latch, audible swallowing, type of nipple, comfort, and hold

Accepted for publication Jan 18, 2007

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PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

PARTIAL ANKYLOGLOSSIA IS defined as a short lingual frenulum that results in restricted range of tongue movement such as limitation of the forward protrusion of the tongue and/or lateral mobility of the tongue.[1] The reported incidence of ankyloglossia ranges from 3.2% to 10.7%.[2–4] There is evidence associating this condition with feeding, swallowing, and speech difficulties.[3–6] In particular, between 12.8% and 44% of infants reportedly experience breastfeeding problems,[3,4] yet the clinical significance of ankyloglossia still remains controversial.[6]

With heightened awareness of the risks to infants not receiving breast milk,[7–9] breastfeeding rates have increased since the early 1970s. However, despite increased initiation, the duration of breastfeeding is often short, with only approximately half of Australian and West Australian women still exclusively breastfeeding at 3 months[10] and <1% at 6 months.[10,11] The main causes given for early weaning of the infant are either real or perceived insufficient milk supply and nipple pain. Both of these symptoms have been associated with ankyloglossia, and, therefore, ankyloglossia should be considered as a contributing factor when assessing women with breastfeeding difficulties.

Geddes et al

Étude par ultrasons du transfert de lait, de la vitesse de transfert; évaluation de la douleur et du score LATCH

Post frénulotomie, amélioration chez tous

2 groupes de bébés : 1 qui comprime le bout du mamelon, l'autre qui comprime la base du mamelon

BURYK

PEDIATRICS
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Efficacy of Neonatal Release of Ankyloglossia: A Randomized Trial

Melissa Buryk, David Bloom and Timothy Shope

Pediatrics 2011;128;280; originally published online July 18, 2011;
DOI: 10.1542/peds.2011-0077

Efficacy of Neonatal Release of Ankyloglossia: A Randomized Trial

WHAT'S KNOWN ON THIS SUBJECT: Ankyloglossia affects 1.7% to 4.8% of all infants. There is evidence that poor latch and maternal nipple pain are more common in infants with ankyloglossia. Some studies have shown that frenotomy benefits these infants; however, significant controversy regarding frenotomy still exists.

WHAT THIS STUDY ADDS: When frenotomy is performed for clinically significant ankyloglossia, there is a clear and immediate improvement in reported maternal nipple pain and infant breastfeeding scores. This study also provides compelling evidence to seek frenotomy when indicated.

abstract

FREE

BACKGROUND: Ankyloglossia has been associated with a variety of infant-feeding problems. Frenotomy commonly is performed for relief of ankyloglossia, but there has been a lack of convincing data to support this practice.

OBJECTIVES: Our primary objective was to determine whether frenotomy for infants with ankyloglossia improved maternal nipple pain and ability to breastfeed. A secondary objective was to determine whether frenotomy improved the length of breastfeeding.

METHODS: Over a 12-month period, neonates who had difficulty breastfeeding and significant ankyloglossia were enrolled in this randomized, single-blinded, controlled trial and assigned to either a frenotomy (30 infants) or a sham procedure (28 infants). Breastfeeding was assessed by a preintervention and postintervention nipple-pain scale and the Infant Breastfeeding Assessment Tool. The same tools were used at the 2-week follow-up and regularly scheduled follow-ups over a 1-year period. The infants in the sham group were given a frenotomy before or at the 2-week follow-up if it was desired.

RESULTS: Both groups demonstrated statistically significantly decreased pain scores after the intervention. The frenotomy group improved significantly more than the sham group ($P < .001$). Breastfeeding scores significantly improved in the frenotomy group ($P = .029$) without a significant change in the control group. All but 1 parent in the sham group elected to have the procedure performed when their infant reached 2 weeks of age, which prevented additional comparisons between the 2 groups.

CONCLUSIONS: We demonstrated immediate improvement in nipple-pain and breastfeeding scores, despite a placebo effect on nipple pain. This should provide convincing evidence for those seeking a frenotomy for infants with significant ankyloglossia. *Pediatrics* 2011;128:280–288

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KEY WORDS

ankyloglossia, frenotomy, breastfeeding, Hazelbaker, tongue-tie

ABBREVIATIONS

NMCP—Naval Medical Center Portsmouth
HATLFF—Hazelbaker Assessment Tool for Lingual Frenulum Function
ENT—ear, nose, and throat
SF-MPQ—Short-Form McGill Pain Questionnaire
IBFAT—Infant Breastfeeding Assessment Tool

Dr Buryk contributed to the study design, data analysis, and drafting of the manuscript; Dr Bloom contributed to the study design and data collection and also performed the frenotomies; and Dr Shope contributed to the study design, data analysis, and drafting of the manuscript.

The views expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense, or the US Government.

This trial has been registered at www.clinicaltrials.gov (identifier NCT00967915).

Dr Buryk is a military service member; this work was prepared as part of her official duties. Title 17 U.S.C. 105 provides that "Copyright protection under this title is not available for any work of the United States Government." Title 17 U.S.C. 101 defines a US Government work as a work prepared by a military service member or employee of the US Government as part of that person's official duties.

Research data were derived from an approved Naval Medical Center Portsmouth institutional review board protocol.

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Buryk

Frénotomie vs fausse procédure

Diminution de douleur dans les 2 groupes, mais bcp plus dans le groupe de frénotomie

Scores d'allaitement améliorés post frénotomie mais pas post fausse procédure

Tous les parents (sauf 1) du 2è groupe ont choisi d'avoir la procédure, donc comparaisons n'étaient plus possibles...

BALLARD

Ankyloglossia: Assessment, Incidence, and Effect of Frenuloplasty on the Breastfeeding Dyad

Jeanne L. Ballard, MD*; Christine E. Auer, RN, IBCLC§; and Jane C. Khoury, MS‡

ABSTRACT. *Objective.* **Ankyloglossia in breastfeeding infants can cause ineffective latch, inadequate milk transfer, and maternal nipple pain, resulting in untimely weaning. The question of whether the performance of a frenuloplasty benefits the breastfeeding dyad in such a situation remains controversial. We wished to 1) define significant ankyloglossia, 2) determine the incidence in breastfeeding infants, and 3) measure the effectiveness of the frenuloplasty procedure with respect to solving specific breastfeeding problems in mother–infant dyads who served as their own controls.**

Methods. **We examined 2763 breastfeeding inpatient infants and 273 outpatient infants with breastfeeding problems for possible ankyloglossia and assessed each infant with ankyloglossia, using the Hazelbaker Assessment Tool for Lingual Frenulum Function. We then observed each dyad while breastfeeding. When latch problems were seen, we asked the mother to describe the sensation and quality of the suck at the breast. When pain was described, we asked the mother to grade her pain on a scale of 1 to 10. When lingual function was impaired, we discussed the frenuloplasty procedure with the parent(s) and obtained informed consent. After the procedure, the infants were returned to their mothers for breastfeeding. Infant latch and maternal nipple pain were reassessed at this time.**

Results. **Ankyloglossia was diagnosed in 88 (3.2%) of the inpatients and in 35 (12.8%) of the outpatients. Mean Hazelbaker scores were similar for the presenting symptoms of poor latch and nipple pain. Median infant age (25th and 75th percentiles) at presentation was lower for poor latch than for nipple pain: 1.2 days (0.7, 2.0) versus 2.0 days (1.0, 12.0), respectively. All frenuloplasties were performed without incident. Latch improved in all cases, and maternal pain levels fell significantly after the procedure: 6.9 ± 2.31 down to 1.2 ± 1.52.**

Conclusion. **Ankyloglossia is a relatively common finding in the newborn population and represents a significant proportion of breastfeeding problems. Poor infant latch and maternal nipple pain are frequently associated with this finding. Careful assessment of the lingual function, followed by frenuloplasty when indicated, seems to be a successful approach to the facilitation of breastfeeding in the presence of significant ankyloglossia.** *Pediatrics* **2002;110(5). URL: http://www.pediatrics.org/cgi/content/full/110/5/e63;** ***ankyloglossia, tongue-tie, nipple pain, poor latch, failure to thrive, problem breastfeeding, frenuloplasty/frenotomy.***

ABBREVIATION. SD, standard deviation.

Ankyloglossia in the newborn or young infant is a subject of ongoing controversy among various professional individuals as well as specialty groups.[1] The controversy involves not only the management but also the definition of this anomaly. A tight lingual frenulum is considered a minor malformation by some investigators.[2,3] It is also found to be part of certain malformation syndromes.[4–10] Although a high-arched palate and recessed chin may be seen as part of the craniofacial constellation,[11] most commonly a tight lingual frenulum is seen as an isolated finding in an otherwise normal infant. Messner and Lalakea[1] conducted a survey of otolaryngologists, pediatricians, speech pathologists, and lactation consultants to determine their approaches to ankyloglossia and their beliefs regarding its association with feeding, speech, and social/mechanical problems. Survey results demonstrated significant differences within and among these professional groups, with pediatricians being the least likely to recommend surgery. Wright[12] concluded from a retrospective study that there is no place for neonatal frenulotomy. Sanchez-Ruiz et al,[13] however, reported problems with deglutition and dentition in older children with uncorrected lingual frenula. Other authors, such as Hasan,[14] reported that tongue-tie was a cause of lower incisor deformity. Williams and Waldron[15] reported that dental specialists are frequently confronted with the dilemma of relating the tight frenulum to certain types of oral-motor dysfunction. Ewart[16] reported an adult male with tongue-tie, gingival recession, and a speech impediment requiring surgery. Several investigators have alluded to ankyloglossia as being problematic for breastfeeding dyads and have proposed surgical correction in such situations.[17–25]

The purpose of this study was to look at the incidence, gender, and age at presentation and the impact of significant ankyloglossia in our population of breastfeeding infants. We defined the severity of the condition by using a quantitative tool, the Hazelbaker Lingual Assessment Tool,[26] scoring both the function and the appearance of the tongue. We related lingual function and appearance scores to each other and to the quality of the infant's latch and

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Ankyloglossia: Assessment, Incidence, and Effect of Frenuloplasty on the Breastfeeding Dyad

Jeanne L. Ballard, Christine E. Auer and Jane C. Khoury

Pediatrics 2002;110;e63
DOI: 10.1542/peds.110.5.e63

Ballard

Incidence 3.2% (interne), 12.8% (externe avec difficultés d'allaitement)

? frénuloplastie

Prise du sein améliorée et diminution de la douleur

Acquired and developmental disturbances of the teeth and associated oral structures

Hartsfield 2016 (McDonald and Avery's Dentistry for the Child and Adolescent (Tenth Edition)
-Hérédité autosomale dominante et liée au chromosome X
-Association avec fente palatine (si mutation du gène TBx22)

Defining Tip-Frenulum Length for Ankyloglossia and Its Impact on Breastfeeding: A Prospective Cohort Study.

Walker et Al, Breastfeeding Medicine, 2018

-Tongue tip-frenulum length correlated with maternal nipple pain

-Visible cord

-Palpable cord ± (variable across examinaters)

Do tongue ties affect breastfeeding

Griffiths, J Hum Lact, 2004

-Durée des pleurs moyenne 15 secondes

Changes in the incidence and surgical treatment of ankyloglossia in Canada

Lisonek et Al, 2017, Paedriat Child Health

-Naissance en hôpital (sauf Québec) 2002 à 2015

-Augmentation incidence 6.86 à 22.6/1000 naissances

-Frénotomie pour ankyloglossie 54.7 à 63.9%

STATISTIQUES D'ALLAITEMENT

Statistics Canada Catalogue

-Initiation de l'allaitement

85% (2003) à 89% (2011-12)

-Allaitement exclusif à 6 mois 17% (2003) à 26% (2011-12)

Long-term efficacy of a tongue tie service in improving breast feeding rates: A prospective study

Billington, Journal of pediatric surgery, 2018

-Infants attending tongue tie clinic had higher total BF and exclusive BF at 3 months

ANKYLOGLOSSIA AND ITS INFLUENCE ON GROWTH AND DEVELOPMENT OF THE STOMATOGNATHIC SYSTEM

Pompéia, Rev Paul Paedriat 2017

-negative effects of lingual frenulum's anatomic and functional alterations over craniofacial growth and development. The opinion about the early surgical intervention, however, is not unanimous

Études

-Le nombre de publications diminue

-Elles sont plus consultées...

- « The natural history of untreated ankyloglossia is not well documented » (Diagnosis and Treatment of Ankyloglossia in Newborns and Infants: A Review. Walsh et Al. JAMA Otolaryngol Head Neck Surg. 2017)

Cas 1

1er bébé né à terme

Garçon de 3.5 kg en bonne santé

Jour 2 post-partum

Consultation du pédiatre (à la demande des infirmières) pour “allaitement difficile”

Cas 1

HISTOIRE:
ATCD mère
Grossesse
Accouchement (interventions, médicaments)
Apgar
1er allaitement
Ictère?
Perte poids
Montée laiteuse
Boires à date

Cas 1

EXAMEN PHYSIQUE

Seins

Poids du bébé

Ictère?

Bouche du bébé

Évaluation de la langue

Cas 1

Cas 1

EXAMEN DE LA BOUCHE

Forme du palais et de la langue

Mouvements de la langue

?micrognathie

Recherche de fissure palatine occulte

ÉVALUATION DE L’ALLAITEMENT

Niveau d’éveil du bébé
Intérêt à boire
Position de la mère
Position du bébé
Ouverture de la bouche
Prise du sein
Transfert de colostrum
Boire entier
Forme et aspect du mamelon après le boire

RECOMMANDATIONS

Évaluation par consultante en lactation

Crème magistrale (Bactroban ong 15 gm, Célestoderm V/2 ong 15 gm et poudre de Clotrimazole ad concentration finale de 1%)

Frénotomie

Suivi

Références

Cas 2

3è bébé

Jour 4 post césarienne (placenta previa)

Bébé fille née à terme

Ictère

Aucune montée laiteuse

Perte de poids de 11%

Histoire

Examen physique

RECOMMANDATIONS

Photothérapie?

Augmenter la production de lait

Frénotomie

Références

Cas 3

Visite post-partum à 6 semaines

2è bébé

Bébé garçon

Tout a bien été jusqu’à la montée laiteuse

Engorgement important

Bébé depuis glisse au sein, doit le repositionner aux 5 minutes

Cas 3

Coliques

Réflexe d’éjection intense

Boires longs et très fréquents

Mère un peu désillusionnée…

EXAMEN PHYSIQUE

Seins OK

Examen de la bouche

Observation du boire

RECOMMANDATIONS

Conseils pour coliques

Conseils pour réflexe d’éjection intense

Frénotomie

Références

Suivi

Cas 4

Consultation à la clinique d'allaitement

N'a pas pu allaiter le 1er bébé à cause de douleurs

Veut vraiment allaiter cette fois-ci mais ressent inconfort important à chaque boire

A fait tous les traitements de muguet du "Mieux Vivre"…

A vu 2 infirmières qui l'ont aidée à corriger sa position

On lui a prescrit la crème magistrale du Dr. Newman

Cas 4

A vu une consultante en lactation qui vous la réfère pour “?frein de langue postérieur”

A vu son médecin depuis qui la rassure qu’il n’y a pas de frein de langue, qu’elle pourrait toujours changer pour la bouteille…

A l’impression que la langue frotte à chaque têtée

Cas 4

RECOMMANDATIONS

Téterelle?

Frénotomie postérieure

Culture de plaie

Références

Suivi

DES QUESTIONS?