**Introduction**

Tongue tie is a restricted, thickened or shortened lingual frenulum (Figure 1). It can restrict the tongue's ability to elevate and extend, both of which are necessary for breastfeeding. It occurs in 0.2-4.8% of infants.1,2 and more commonly in males.3 Due to an increasing number of women choosing to breastfeed, there is an increased awareness of tongue tie and its potential for affecting breastfeeding.

Based on prior evidence that frenuloplasty did not significantly impact feeding or speech outcomes for most infants, a majority of pediatricians traditionally recommend not doing a frenuloplasty unless the tongue tie interferes significantly with breast feeding.4 In fact, Nelson's *Textbook of pediatrics* states that 'Short lingual frenulum may be worrisome to parents but only rarely interferes with eating or speech, generally requiring no treatment.'4 A study done in 2000 showed that only 10% of pediatrician and 39% of otolaryngologists respondents felt that tongue tie frequently affected feeding, while lactation consultants and speech therapists were more likely to feel that it affected feeding.5

However, recent research has again raised the possibility of tongue tie as a key to painful breastfeeding and/or poor latch.6 In addition, a few small studies demonstrated some potential benefit in feeding and nipple pain after frenuloplasty.7–8 These studies have generated an increased interest from parents and some healthcare providers in frenuloplasty as a means of helping infants with difficulties in breastfeeding.9–11 Unfortunately, most of these studies have low to insufficient strength of evidence.6 Therefore, further high quality research is necessary to establish a severity scale, correlate tongue tie with symptoms and provide evidence based recommendations on which infants and timing to maximize benefit from frenuloplasty.

Not all infants see an objective improvement in breast feeding after frenuloplasty.12 Unfortunately, 8-28.8% still have feeding problems.13 This raises the question of what factors other than the tongue tie may be negatively influencing these infants ability to feed and whether or not the tongue tie ever had a significant negative impact on their feeding.

Infant feeding difficulties have been shown to improve by treating somatic dysfunction.14–15 Somatic dysfunction of the cranial base and sphenocleid occipital have direct implications for impacting the hypoglossal nerve which provides motor control of intrinsic tongue musculature.16 This leads us to question if infant feeding difficulties are related to their tongue tie, a somatic dysfunction or a combination. This study aims to identify the frequency of somatic dysfunctions in infants with a diagnosis of tongue tie. We propose that infants diagnosed with tongue tie should first undergo a thorough feeding evaluation, including evaluation for somatic dysfunction, as a first step in distinguishing infants with feeding issues caused by somatic dysfunction from those infants with feeding issues directly related to tongue tie. Further, it is our hypothesis that infants with tongue tie and feeding issues will have a high incidence of cranial base dysfunction.

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**Abstract**

**INTRODUCTION:** The recent increase in breastfeeding has brought an increased awareness of potential causes for breastfeeding difficulties. Many parents are choosing frenuloplasty or laser revision for their infants with tongue tie. This study aims to identify somatic dysfunctions commonly found in infants with tongue ties as a first step in distinguishing infants with feeding issues caused by somatic dysfunction from those with tongue tie and feeding issues will have a high incidence of cranial base dysfunction. **METHODS:** A retrospective chart review was performed on 48 charts of infants diagnosed with tongue tie who had been seen from June 2012 to January 2017 at a multispecialty practice. Thirty-one charts were excluded and 17 charts are reviewed here. **RESULTS:** Of the 17 infants with tongue tie, 76.4% had difficulties with latching and 35.3% had difficulties with feeding. Of the infants (100%) had occipital cranial base dysfunction, 94.1% had restriction of at least one cranial suture, 94.1% had OA dysfunction and 23.5% had dysfunction at the sphenobasilar synchondrosis. **CONCLUSIONS:** All of the infants with tongue tie had somatic dysfunction at the cranial base. This again raises the question of whether or not the feeding issues were directly related to the tongue tie or the somatic dysfunction or a combination of both. This study was limited by sample size and limited diversity of patient sampling. Further studies are necessary.

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**Methods**

The electronic medical record system at a multispecialty private clinic in Blacksburg, VA, was searched from 6/2012 to 1/2017 for infants with tongue tie (Icd9 750.0 or Icd10 Q38). Forty-eight charts were identified. Thirteen children were over 12 months old when initially diagnosed with tongue tie and 7 established care. Nine of the 12 month olds and their charts did not contain the necessary information. Therefore, 38 infants with tongue tie diagnosed under the age of 12 months were identified. Unfortunately, only 17 had been assessed for somatic dysfunction. All 17 were assessed by the same physician. Those 17 charts were then reviewed for demographic information, type of delivery, method of feeding, presenting symptom and somatic dysfunction.

**Results**

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**References**


5. Lalakea S, Reilly MP, Hughes AP. The recent increase in breastfeeding has brought an increased awareness of potential causes for breastfeeding difficulties. *MJA* 2013;199(5):286-287.


15. Lalakea S, Reilly MP, Hughes AP. The recent increase in breastfeeding has brought an increased awareness of potential causes for breastfeeding difficulties. *MJA* 2013;199(5):286-287.