

A Retrospective Study of Tongue Tie And Its Familial tendency:

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Abstract:

Aim: The aim of the study was to assess whether the familial occurrence has an influence on tongue tie.

Method: This study included 214 patients diagnosed with tongue tie over a period of 6 months from the age group of 6 months to 17 years at Department of Dental Surgery, Government Tiruvannamalai Medical College and Hospital, Tiruvannamalai.

Results: Among 214 patients, 40 (18.69%) patients presented with a positive history of tongue tie in their families and 174 (62.61%) cases presented with negative history. 89 (41.58%) patients were born to a consanguineously married parents. In this study 109 (50.93%) patients had speech alteration. And 8(3.73%) patients had comorbidity. 65% were male patients and 35% were female patients. In this retrospective study, 94(43.9%) patients had class I tongue tie, 89(41.6%) patients had class II, 29(13.6%) patients had class III, 2 (0.9%) patients had class IV tongue ties.

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I. Discussion

Ankyloglossia is defined as a limitation of the possibilities of the protrusion and elevation of the tip of the tongue due to either the shortness of the frenulum or genioglossus muscles or both.(7,9) Tongue tie more common in man with male to female ratio of 2.5:1.0.(5,11,13) Pathogenesis of ankyloglossia is not known. Ankyloglossia can be a part of certain rare syndromes such as X-linked cleft palate(12) and Van der woude syndrome(2). Maternal cocaine use is reported to increase the risk of ankyloglossia to more than threefold.(5) The abnormally short lingual frenulum may result in varying degree of decreased tongue mobility. Tongue tie has been suggested to cause breastfeeding difficulties (sore nipples, poor infant weight gain, early weaning), speech disorder(impaired articulation), problems with deglutition and dentition and social issues related to the limited function of the tongue.(10) According to Cues et al, the diagnosis of ankyloglossia is based on anatomical criteria(inspection and palpation of the lingual frenum) and functional one(lifting, extension and lateralisation of the tongue). (3).The Hazelbaker Assessment Tool for lingual Frenulum Function(HATLFF) has been developed to give a quantitative assessment of tongue-tie and recommendation about frenotomy(release of the frenulum)(1,4). Ankyloglossia can be classified into 4 classes based on Kotlow's Classification as follows: Class I: mild ankyloglossia (frenal attachment 12-16mm from the tip of the tongue), Class II: Moderate ankyloglossia(frenal attachment 8-12mm from the tip of the tongue), class III: Severe ankyloglossia (frenal attachment 4-8mm from the tip of the tongue), ClassIV: Complete ankyloglossia (frenal attachment less than 4mm from the tip of the tongue). Class III and IV tongue tie categories should be given special consideration because they severely restrict the tongue movements.(9)

Nowadays, several surgical techniques have been described to correct an abnormal frenulum. The following techniques are of particular interest in Pediatric Dentistry: Frenotomy and frenectomy with the use of one haemostat, two haemostats, a groove dissector or laser(8,11,14).Heller et al., recommended the Z- plasty since our data indicated that the 4- flap Z-frenuloplasty was superior to the horizontal to vertical frenuloplasty

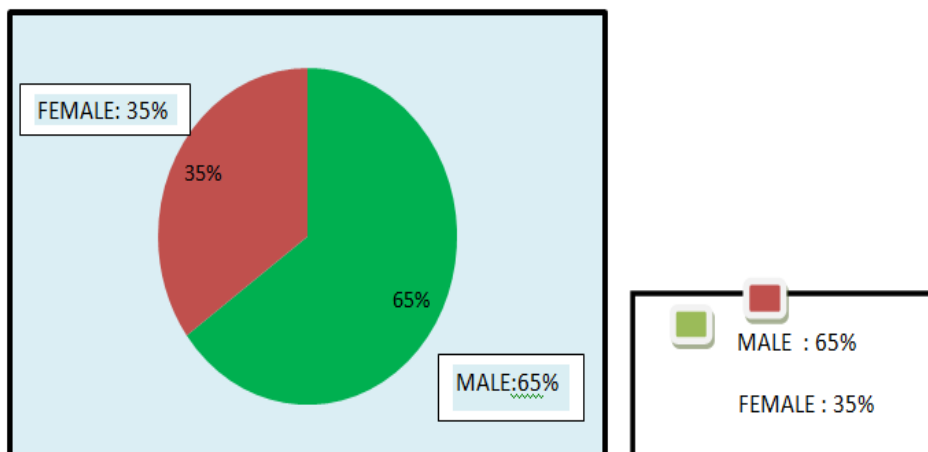
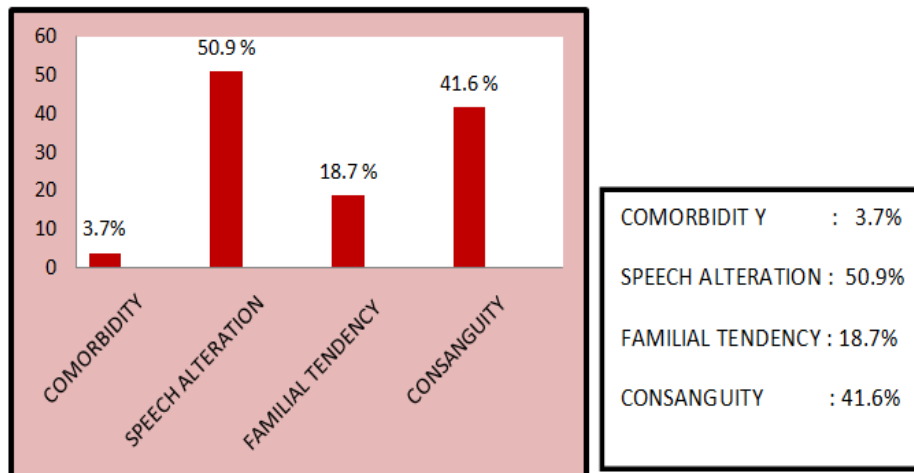
with respect to tongue lengthening, protrusion, and articulation improvement for patients with symptomatic ankyloglossia.(6).

II. Conclusion

In this retrospective study 18.7% of patients had familial tendency to tongue tie. Males are more prone 65% , female tongue tie is only 35%. To find out the reason for familial tendency of tongue tie , genetic study is needed.

References

- [1]. Amir LH, James JP, Donath SM. Reliability of the hazelbaker assessment tool for lingual frenulum function. Int breastfeed J 2006; 1:3.
- [2]. Burdick AB, Ma LA, Dai ZH, GaoNN. Van der woude syndrome in two families in china. J craniofac Genet Dev Biol 1987; 7(4):413-8.
- [3]. Cuestas G, Demarchi V, Martinez corvalan MP, Razetti J, Boccio C. Surgical treatment of short lingual frenulum in children. Arch Argent Pediatr.2014;112:567-70.
- [4]. Edmunds J , Hazelbaker A, Murphy JG, Philip BL. Tongue tie Hum lact.2012;28:14-7.
- [5]. Harris EF, Friend GW, Tolley EA. Enhanced prevalence of ankyloglossia with maternal cocaine use. Cleft palate craniofac J 1992;29(1): 72-6.
- [6]. heller J, Gabbay J, O’Hara C, Heller M, Bradley JP. Improved ankyloglossia correction with four-flap Z frenuloplasty. Ann plast surg.2005;54: 623-8.
- [7]. Jamilian A, Fattathi FH, Kootanayi NG. Ankyloglossianand tongue mobility. Eur Arch Pediatric Dent2014;15:33-5.
- [8]. 8.Junqueira MA, Cunha NN, Costa e Silva LL, Araujo LB, Moretti AB, Couto Filho CE, et al. Surgical Techniques for the treatment of ankyloglossia in children ; a case series. J Appl oral Sci.2014;22:241-8.
- [9]. Kotlow LA. Ankyloglossia(tongue tie); a diagnostic and treatment quandary. Quintessence International.1999;30:259-62.
- [10]. lalakea mL, Messner AH. Ankyloglossia; does it matter? Pediatr Clin North Am 2003; 50(2):381-97.
- [11]. Messner AH, Lalakea ML Ankyloglossia: controversies in management. Int J Pediatr Otorhinolaryngol 2000;54(2-3):123-31.
- [12]. Moore GE, Ivens A, Chambers J, Farrall M, Williamson R, Page DC, et al . linkage of an X-chromosome cleft palate gene. Nature.1987;326(6108):91-2.
- [13]. Ricke LA, Baker NJ, Madlon – kay DJ, Defor TA. Newborn tongue tie; prevalence and effects on breastfeeding. J Am Board Fam Pract 2005;18(1):1-7.
- [14]. Sane VD, Pawar S, Modi S, Saddiwal R, Khade M, Tendulkar H. Is use of Laser Really Essential for release of tongue tie? J Craniofac Surg. 2014;25:e279-80.





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