

ANKYLOGLOSSIA: CASE REPORT

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ABSTRACT

Frenum is the thin mucous membrane fold connecting the lips and the tongue to the mucosa and periosteum. Ankyloglossia or tongue tie is often associated with short, thick lingual frenum resulting mainly in limited tongue movements along with other complications. This case report will highlight about the occurrence of ankyloglossia or tongue tie in a patient and its effective management.

KEY WORDS

Ankyloglossia, tongue-tie, Frenum

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INTRODUCTION

Frenal attachments are thin mucous membrane folds with enclosed muscle fibers that attach the lips and/or tongue to the alveolar mucosa and underlying periosteum.^{1,2} Ankyloglossia or tongue tie is the congenital anomaly characterised by short thick lingual frenulum resulting in reduced mobility of the tongue.³ It has also been associated with problems in breast feeding among neonates, dental caries, malocclusion, gingival recession, and restricted alveolar bone growth in growing children etc.³⁻⁵ Although, several frena are usually present within the oral cavity, the most notably are the maxillary and mandibular labial frenum, and the lingual frenum with their primary function of providing stability of the upper and lower lip and also the tongue.¹⁻³

CASE REPORT

An adult male patient aged twenty years reported to the outpatient department with chief complaint of difficulty in swallowing and tongue movements. Patient's general history was found to be non-contributory by nature. On examination, patient's oral hygiene was found to be good with little overlapping of lower anterior teeth. The presence of short lingual frenum resulting in ankyloglossia with limited tongue movements and presence of V shaped notch at the tip of the tongue were noted within the oral cavity (Fig.1 & Fig.2). The need for surgical correction of ankyloglossia or tongue tie and the aberrant upper labial frenal attachments for betterment were explained to the patient's family.

The ankyloglossia or short lingual frenum was surgically excised after achieving local anaesthesia with the help of scalpel and haemostat (Fig.3 &4). The area was carefully sutured after achieving adequate haemostasis (Fig.5). The patient was advised to do the tongue movements on a regular basis.

The patient was advised to follow up the proper post-operative instructions and was also referred to the speech therapist for better phonetics which were



Fig.1. Ankyloglossia was noted



Fig.2. Ankyloglossia resulting in reduced tongue movement



Fig.3. Surgical excision of frenum was done



Fig.4. Immediate post-op view



Fig.5. Suture was given



Fig.6. Post-op one week



Fig.7. Post-op one month



Fig. 8 .Post-op 3 month

found to be improved on subsequent visits with increased tongue movements (Fig.6 &7). The patient showed improved results on post-operative visits (Fig.8).

DISCUSSION

Frenal attachments are basically the cords of mucosal tissue beneath the tongue and in the labial and buccal vestibules, which during the intrauterine development, apparently guide the growth of various structures of the oral apparatus.^{1,2} After birth, they are largely redundant although they seem to help in the

positioning of primary teeth.^{1,3} 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 the genioglossus muscles or both.⁴ Although, it is a congenital anomaly with a prevalence of about 5% and male: female ratio 2:1, it could be seen in different ages with specific indications for treatment.^{3,5} It may be syndrome associated. Abnormal or aberrant frenal attachments may also be associated with variety of clinical syndromes such as Ehlers Danols syndrome, Ellis van Creveld syndrome etc.^{1,2} Ankyloglossia usually 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 the genioglossus muscles or both.⁴ It may result due to failure in cellular degeneration leading to a much longer anchor between the floor of the mouth and tongue.⁶ Most of the patient's with ankyloglossia are clinically asymptomatic with limited tongue movements resulting in difficulty in breast feeding in neonates, dental caries, altered jaw development as well as difficulty in phonations of certain words such as s, z, t, d, l, j, zh, ch, th, dg etc.^{2,6} Most of the tongue-tie presents as partial ankyloglossia from tongue tip to the base of tongue with variable degrees of classification and classification of ankyloglossia based on the degree of limitation of lingual mobility due to the hypertrophic lingual frenulum.^{7,8} Both ankyloglossia and high labial frenum can be observed in various ages with varied clinical presentations and often require surgical corrections. Simple surgical excision of frenum or frenectomy is the most effective way of management. However, a frenum with wide base might be effectively managed by simple modification of the technique such as Z plasty and a localized vestibuloplasty with secondary epithelization etc.¹ Frenotomy or simple cutting of the frenulum and frenuloplasty i.e. various methods to release the tongue-tie and correct the anatomic situation also used by the clinician depending upon the situation but electro cautery and laser might also be used in effectively manage these situations. Speech therapy, orthodontic interventions, and proper muscular exercises are also effective in some cases to improve the phonetics and other complications. Although, delay in language acquisition was also noticed in some cases after frenum excision, much motivation is required to boost progress toward developing proper oro-motor skills.^{3,5}

In this present case, a twenty year old male patient reported to the department with difficulty in swallowing, tongue movements and phonation of certain words. On examination, partial ankyloglossia or tongue-tie was detected. After taking proper medical history, which was found to be non-contributory, surgical excision of frenum were carried out under local anaesthesia with the help of scalpel. Patient was followed up post-operatively with no history of recurrence. The patient was advised for speech therapy to improve the phonetics.

CONCLUSION:

Although, tongue tie or ankyloglossia are usually incidental findings during routine dental examinations early detection and management is necessary to effectively manage the future complications. The further investigations regarding the genetic predisposition of tongue tie in the same patient will obviously enlighten more information.

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