CASE REPORT

Tongue-tie Management: A Case Report

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ABSTRACT

Tongue-tie or ankyloglossia is a rare congenital anomaly. It is a short, thick, and fibrosed lingual frenum which causes restriction in function of the tongue and also in speech. Tongue is an accessory organ, and it helps in deglutition, mastication, and speech. Tongue-tie also causes lingual recession of the teeth. So, it is necessary to treat at the right time. In this case, the patient has a lingual tongue-tie which has been treated by using a diode laser.

Keywords: Ankyloglossia, Frenectomy, Laser, Recession.

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INTRODUCTION

Tongue is a muscular organ in the mouth, which helps in swallowing, speech, tasting, and feeding. Tongue is multifunctional and when it gets tie (ankyloglossia), it limits some of its activity. In 1960, Wallace defined tongue-tie as a condition in which the tip of the tongue cannot be protruded beyond lower incisor teeth because of a short frenulum linguæ.¹ Kotlow gave the classification for ankyloglossia (Table 1).²

A normal motion range of tongue is indicated when the tip of tongue is able to protrude outside the mouth without clefting, when lingual frenum allows a normal swallowing, when there is no speech difficulties due to limitation of the tongue movement, and when it can sweep the upper and lower lips easily, without straining.³ Any condition restricting free movement of the tip of the tongue and preventing it from touching the anterior palate, then it may interfere with the development of an adult swallow and may result in an open bite deformity.³

CASE DESCRIPTION

A 26-year-old male patient reported to the Department of Periodontology in Mahatma Gandhi Dental College and Hospital, Jaipur, with his chief complain of bad breath and bleeding gums which were affected more than girls with a ratio of 2:1.⁵ It is important to properly diagnose before going for the surgical intervention. There is a positive relationship between tongue-tie and speech disorder.⁶ For proper diagnosis of the tongue-tie, there should be a routine dental examination for children under the age of 3 years.² Recommending treatment for short lingual attachment, dentist often delay unless there is speech or tongue movement difficulties.² Surgical intervention like frenotomy, frenectomy, or frenuloplasty is seen beneficial for tongue-tie. Patients should be educated about tongue-tie and its long-term effect, so that they can go for the possible therapy.⁵ Ankyloglossia varies from 0.1 to 10.7%.⁷ As we know that tongue is an accessory organ that helps us in deglutition, mastication, and speech. Tongue-tie patients get trouble in speaking with the words that sound from the tongue tip like s, n, t, d, j, zh, ch, th, dg, and l.⁸ It also causes more thrust of the tongue against anterior mandible.

TREATMENT

The patient was advised for blood investigation. After completing phase I therapy, surgical lingual frenectomy was undertaken under local anesthesia with 2% lignocaine and 1:80,000 adrenaline. The referred to speech therapist for correction of speech defects. After 1 month, the patient showed healing with no scar formation (Fig. 5).

DISCUSSION

Tongue-tie or ankyloglossia is a diagnostic challenge for dentists. It is a congenital condition with a prevalence of about 5%.⁹ Boys are affected more than girls with a ratio of 2:1.⁵ It is important to properly diagnose before going for the surgical intervention. There is a positive relationship between tongue-tie and speech disorder.⁶ For proper diagnosis of the tongue-tie, there should be a routine dental examination for children under the age of 3 years.² Recommending treatment for short lingual attachment, dentist often delay unless there is speech or tongue movement difficulties.² Surgical intervention like frenotomy, frenectomy, or frenuloplasty is seen beneficial for tongue-tie. Patients should be educated about tongue-tie and its long-term effect, so that they can go for the possible therapy.²,⁶ Ankyloglossia varies from 0.1 to 10.7%.⁷ As we know that tongue is an accessory organ that helps us in deglutition, mastication, and speech. Tongue-tie patients get trouble in speaking with the words that sound from the tongue tip like s, n, t, d, j, zh, ch, th, dg, and l.⁸ It also causes more thrust of the tongue against anterior mandible.

Table 1: Kotlow’s classification

| Class   | Description                     | Measurement |
|---------|---------------------------------|-------------|
| I       | Mild ankyloglossia              | 12–16 mm    |
| II      | Moderate ankyloglossia          | 8–11 mm     |
| III     | Severe ankyloglossia            | 3–7 mm      |
| IV      | Complete ankyloglossia          | < 3 mm      |

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and produces a mandibular prognathism due to lack of free movement of the tongue. Gingival recession has also been seen on the lingual surfaces. In this case report, ankyloglossia was treated with surgical frenectomy procedure by using diode laser.

The treatment can also be done with conventional scalpel, but visibility of working area can be hindered due to excess bleeding, and in that case, diode laser is an excellent tool that provides better visibility with minimal bleeding as it is bactericidal and...
anticoagulant. Laser provides less postoperative pain than that obtained by conventional therapy.

**CONCLUSION**

Tongue-tie becomes difficult for the patient due to limitation of tongue mobility and speech problem. So, it is necessary to treat it on correct time which can be improved by surgical interventions.

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