Brief Communication

Ankyloglossia release using ultrasonic scissors

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Abstract:

Ankyloglossia is a condition where there is a limitation to the tongue movement due to the congenitally short frenulum. This condition eventually lead to early weaning and poor weight gain. Frenotomy, or tongue tie division can be performed by few methods. Iris scissors or scalpel traditionally has been used. In adults a muscle release may be needed to give a good muscle tension upon closing. Laser use in adult has been described. We utilized ultrasonic scissors in this case.

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Case summary

An 11-month-old baby boy was brought by the parents with complaint of restricted tongue movement. The condition affected his feeding and speech. Examination showed the child was in good general health condition. The tongue movement was restricted, unable to protrude beyond the lower incisor (Figure 1). The diagnosis was tongue tie or ankyloglossia. Release procedure was discussed and agreed on.

Patient lies supine under general anaesthesia with laryngeal mask airway (LMA) size 2. The oral cavity especially the anterior part of the tongue and floor of the mouth were cleaned with normal saline and draped. No local anesthetic infiltration was done. The tip of the tongue held with Luc forceps. Cutting of the frenulum was done until its base using the ultrasonic scissors (Figure 2). The frenulum was gently held in between the blades of the scissors. The power used was min 3-max 5. The cutting was done with no bleeding. The tongue mobility improved immediately post op (Figure 3). The patient was immediately extubated. No complication was encountered intra-op and post-operatively.

Figure 1a: The limited mobility of the tongue due to ankyloglossia.

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Figure 1b: Tongue movement limited to 3 mm before frenulectomy.

Figure 2: Harmonic scissors are used to perform a bloodless frenulectomy.

Figure 3a: No bleeding was encountered throughout the procedure.

Discussion

Ankyloglossia is a condition where there is a limitation to the tongue movement due to the congenitally short frenulum[1]. The condition is detected early in newborn because it affects feeding to both; the mother and the baby. Eventually this will lead to early weaning and poor weight gain.

Frenotomy, or tongue tie division can be performed by few methods. Iris scissors or scalpel traditionally has been used[1,2]. In adults a muscle release may be needed to give a good muscle tension upon closing[2]. Laser use in adult has been described[3].

We utilized ultrasonic scissors in this case. It was an uneventful procedure whereby a short anesthesia was the only needed. As in other procedures performed with this instrument, bleeding was not apparent[4,5]. In fact there was no bleeding in this case, as it was being done with a laser instrument[3]. The operative time is shortened. In any procedure which needs the removed specimen to be histologically examined, the collateral heat damage causing necrosis was very minimal with the use of ultrasonic instrument[5].

In all cases, regardless the instruments used, care must be taken to avoid damage to the opening of the submandibular and sublingual ducts in the floor of the mouth[1]. By cutting the frenulum using ultrasonic scissors, especially in babies, suture ligation of bleeding can be avoided and risk of damage to the duct opening can be minimized.

References

1. Sharma SD, Javaraj S. Tongue-tie division to treat breastfeeding difficulties: our experience. *J Laryngol Otol* 2015;**129**(10):986-9. https://doi.org/10.1017/S002221511500225X
2. Chaubal TV, Dixit MB. Ankyloglossia and its management. *J Indian Soc Periodontol* 2011;**15**(3):270-2. https://doi.org/10.4103/0972-124X.85673
3. Lamba AK, Aggarwal K, Faraz F, Tandon S, Chawla K. Er, Cr:YSGG laser for the treatment of ankyloglossia. *Indian J Dent* 2015;**6**(3):149-52. https://doi.org/10.4103/0975-962X.163049
4. Irfan M, Aliyu YA, Baharudin A, Shahid H. Harmonic scalpel for a bloodless partial glossectomy: a case report. *Med J Malaysia* 2011;**66**(2):148-9.
5. Yuen AP, Wong BY. Ultrasonic glossectomy-simple and bloodless. *Head Neck* 2005;**27**(8):690-5. https://doi.org/10.1002/hed.20202