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Lingual Frenectomy Using Er:YAG – A Case Study

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Ankyloglossia is a congenital anomaly that limits the mobility of the tip of the tongue. In cases where feeding, speech and oral hygiene are affected a frenectomy may be considered, especially when the development of an open bite deformity and mandibular prognathism are likely. Conventional frenectomy techniques would include the use of a scalpel, radio-frequency device or scissors, which often requires at least one stitch and leads to some degree of post-operative discomfort as well as the need for a return visit to remove the stitch(es). The main advantages of using the Er:YAG laser with the below recommended settings are that there is no bleeding and stitching is not required, minimizing post-operative discomfort for the patient, and reducing procedure time for the practitioner.

In this case the patient was referred by the pediatrician and presented with speech problems. We placed cotton pads under the patient's tongue for approximately 30 seconds before administering normal local anesthesia. Securely holding the superior part of the frenulum with forceps, the Er:YAG laser treatment was administered from the superior part of the frenulum downwards, using the settings provided in the table below. The procedure was concluded in a matter of seconds; the first number of laser shots was administered approximately in the same location to initiate the separation of the frenulum from the tongue. The following sequence of laser shots in quick succession along the frenulum to provide a clean incision.

Laser source:	Er:YAG (2940 nm)
VSP Mode:	LP
Pulse energy:	550 mJ
Frequency:	6 – 10 Hz
Handpiece:	R14
Water/Air Spray Setting:	None

No further post-operative care was required. The patient was released immediately with instructions to eat ice-creams. Licking ice cream provides discomfort relief and moving the tongue avoids scar formation. The main benefit of the Er:YAG lingual frenectomy for the patient is its simplicity, speed and minimal discomfort both during and post-operatively. It is an ideal treatment solution for young patients.



Before



Immediately after

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