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Comparison of the effects of high-power diode laser and electrocautery for lingual frenectomy in infants**Adriana Mazzoni***Universidade Nove de Julho, Brazil*

Ankyloglossia is characterized by an abnormally short, thick, or thin lingual frenulum that can restrict tongue movements and negatively interfere with breastfeeding, decreasing the newborn's ability to latch on, suck, and extract breast milk properly. The management of a newborn with a positive test for ankyloglossia should always consider whether this condition interferes with breastfeeding and for this reason the importance of evaluating breastfeeding as a routine procedure. When breastfeeding is difficult due to ankyloglossia, and when lingual frenectomy is recommended to release the lingual frenulum allowing the tongue to move, this may be the first step in solving the problem. The objective of this study was to evaluate the release of the lingual frenulum, through lingual frenectomy, of newborns from zero to 90 days of age who are breastfed (exclusive or not) and had a transdisciplinary diagnosis of ankyloglossia with indication for surgery, comparing the use of two thermal instruments: electrocautery and highpower diode laser. Fifty-seven Patients were randomly allocated into two groups (23 undergoing electrocautery and 34 subjected to a high-power diode laser). Tongue movements were evaluated based on a clinical picture with evaluation and using the Bristol Tongue Assessment Tool (BTAT) before and 15 days after surgery (this time was chosen because they were infants who should be able to breastfed). Both groups had an increased BTAT score (favorable result) in the post-surgical evaluation, in some clinical cases, the movement of the tongue was not enough and we didn't achieve the real objective of the surgery, which was the achievement of tongue movement, and the anterior third of the tongue was not always free allowing the movements necessary for lingual functions, and we consider this fact as a recurrence. The group subjected to use of high power-diode laser showed less post-surgical bleeding and no inflammation at the edges of the surgical wound, and also did not present spontaneous complaints from nursing mothers about changes in the behaviour of infants in the days after surgery but had more recurrence in relation to the use of electrocautery. Recurrence was considered when, during the healing process, the tongue no longer showed free movement in its anterior third, due to scarring, which could be due to tissue recoaptation or due to fibrotic tissue stiffening and retracting the region. In our conclusion, we'd like to suggest that it is essential that surgeons have the and deep knowledge of the equipment used to avoid accidents and complications in the region of important structures. Both techniques used in this study were safe and effective, causing little bleeding and few postoperative complications. And that the protocol of parameters used for the use of high-power laser, normally used in adult patients, should be further studied and modified when it comes to babies who have a faster metabolism, and different behavior and needs in relation to adult patients.

Biography

Adriana Mazzoni was graduated in Dentistry at the University of Santo Amaro em 1989, Specialization in Pediatric Dentistry at the University of Santo Amaro in 1994, Master's degree at Biophotonics Program at Universidade Nove de Julho in 2022, Official certifier of the lingual frenulum evaluation of the Ministry of health of Brazil. I have been working a private clinic for 33 years, I have given classes and courses related to dentistry for babies at some universities and have been working with breastfeeding difficulties and ankyloglossia for 27 years.