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IS DIFFICULTY FEEDING AN INDICATION FOR FRENULOTOMY IN PATIENTS WITH ANKYLOGLOSSIA?

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Background: Ankyloglossia or “tongue-tie” is a common congenital anomaly that can restrict movement of the tongue and thus cause feeding difficulties. The immediate sequelae of this include distress to both mother and baby, and in the long term may result in sub-optimal weight gain. Thus ascertaining the value of frenulotomy in such patients is necessary.

Aims: To analyse the experimental literature relating to frenulotomy in ankyloglossia patients with feeding difficulties.

Methods: PubMed and Cochrane Library search of combinations of MeSH terms: “ankyloglossia”, “tongue-tie”, “feeding”, “frenulotomy”, “frenulectomy”, “frenotomy”, “frenuloplasty”, “frenectomy”, “tongue-tie division” yielded 104 results; 22 relevant and accessible.

Results: Few studies exist to date, and these have concluded in favour of frenulotomy over breastfeeding advice alone. However, the quality of evidence is somewhat questionable. In many cases, the supposed improvement in feeding is subjective, with no data on growth of the baby, which would be a more accurate long-term measure of outcome. Additionally, sample sizes are too small to provide a conclusion of strength. The only randomized control trial to date is hampered by significant bias, as mothers were given the option of frenulotomy if breastfeeding did not improve with counselling.

Conclusion: Issues with diagnosing and assessing the severity of ankyloglossia contribute to the sparsity of evidence available. Additionally, lactation consultants are often in favour of frenulotomy, thus introducing bias into studies. While the evidence is controversial, the minimal adverse effects associated with the procedure lead the author to conclude that it should be offered when feeding difficulties arise.

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GALACTOSE-INTERFERENCE ON POCT GLUCOSE ANALYSIS

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Background and aims: Hypoglycemia is a typical, potentially life-threatening symptom in classical galactosemia with blood galactose considerably elevated (up to ~100 mg/dl). Therefore we tested the interference of galactose on POCT glucose meters.

Methods: Galactose was added to heparin whole blood (glucose concentration 48-63 mg/dl in series I, 0 mg/dl in series II) to obtain concentrations of 100 and 200 mg/dl (series I) and 50 and 100 mg/dl (series II). Due to measurement delays galactose declined in series II to 17 and 52 mg/dl, respectively.

Results:

I) Glucose ~55 mg/dl +	Galactose 0 mg/dl	Gal 100 mg/dl	Gal 200 mg/dl
Glucose Nova	47/55/50/50	50/55/51/34	44/53/51/48
Glucose Performa	61/63/63/65	98/103/93/111	142/144/147/144
Glucose ABL835 No 1	48	72	95
II) Glucose 0 mg/dl +	Galactose 0 mg/dl	Gal 17,2 mg/dl	Gal 55 mg/dl
Glucose Nova	1/1/1/1	0/0/0/0	0/0/0/0
Glucose Performa	0/0/0/0	37/38/37/38	53/57/60/57
Glucose ABL835 No 1	2/2/2/1	25/25/24	45/47/45
Glucose ABL835 No 2	1/1	13/14	38/38

[Galactose-Interference]

Conclusions: These results show, that most POCT glucose meters are not able to diagnose hypoglycaemia in the presence of galactose.

The FDA has warned physicians of the potential for life-threatening falsely elevated glucose readings in patients who have received ... products containing (or metabolized to) maltose or galactose...,