The Impact of Tongue Reduction Surgery on Feeding Difficulties in Infants with Macroglossia Associated with Beckwith Wiedemann Syndrome

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Abstract

**Purpose:** To describe the feeding difficulties in infants in this population prior to tongue reduction surgery (TRS) and evaluate the changes that take place in feeding skills as a consequence of surgery.

**Methods:** This was a service evaluation based on a retrospective case cohort series of a consecutive group of infants (n=25) who attended a single-centred NHS tertiary service for management of macroglossia associated with Beckwith Wiedemann syndrome, September 2012 – July 2015. All of the participants underwent TRS. Routinely-collected pre- and postoperative Speech and language therapy feeding data, including a pilot feeding checklist, were analysed. The checklist captured the frequency of a feeding behaviour during the assessment of liquids, purees and solids. Age-ranges: pre-operative feeding assessment = 5-16 months; post-operative assessment = 10-24 months; Age at TRS: 7-21 months (mean 16 months, SD 3.43 months). The children acted as their own controls. Descriptive statistics were used to describe the frequency of each feeding behaviour pre and post-operatively. Further statistical analysis is currently being undertaken to examine whether sub-items can be grouped into meaningful categories in order to provide meaningful feeding outcomes.

**Conclusion:** This study offers a useful clinical profile of the feeding difficulties in infants with macroglossia in BWS to dysphagia SLTs and paediatricians, enabling earlier intervention, optimal pre-operative feeding management and reduced respiratory sequelae. This profile will enhance parent-counselling about feeding difficulties and the long term outcomes following TRS. The pilot trial of the checklist will contribute to a larger study into the development of a macroglossia assessment.