



Children with Cleft Lip and Cleft Palate – What can the surgeon contribute to [breast]feeding?

Does ultrasound provide new knowledge?

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Brief biographies

Dr. Dr. Johannes Kuttenberger is head of the Clinic for Mouth-Jaw and Facial Surgery at the Luzerne Canton Hospital. One of his primary areas of work is treating patients with cleft lips and palates. He heads up the interdisciplinary cleft team at the Luzerne Canton Hospital.

Christa Herzog-Isler, from Switzerland, is a nurse, an IBCLC since 1987, certified adult educator and grandmother of twins. She is part of the cleft team at the Luzerne Canton Hospital and lectures in-country and abroad on the topic of breastfeeding babies with a cleft lip and/or palate. In 2010 she produced the new DVD: "Mauro with a Cleft – Breastfeeding with Detours."

Dr. Jürg Caduff is a pediatric radiologist at the Luzerne Canton Hospital

Goals

- Promoting the imprinting of mother and baby
- Building up a milk supply through interdisciplinary care after birth
- Ideally, making possible (partial) breastfeeding pre- and post operatively
- Recognition of the connection between the surgical (re)construction of normal anatomy and feeding
- Recognition and understanding of the physiological course of process of feeding (with a bottle), in particular the tongue function pre- and post operatively with the help of ultrasound pictures.

Abstract

Newborn babies with a cleft palate are not able to create a vacuum. Taking in nourishment is significantly hampered thereby. Partial breastfeeding is possible in a small minority of these children. They are conspicuous by their difficulty with breast[feeding], insufficient weight gain and milk that runs out of the nose.

Early imprinting on the breast and the building up of milk production are important preconditions which must be created through interdisciplinary care immediately after birth in order to be able to [breast]feed after the surgical creation of normal anatomical relationships.



Since 1998 oral surgeons, IBCLCs, orthodontists, ENT physicians, phoneticists as well as speech therapists have worked together as an interdisciplinary cleft team in the holistic care of parents and their children with a cleft lip and/or palate. This collaboration is greatly valued by the parents who are, as a rule, well informed and frequently compare notes over the Internet. After the birth of a child with a cleft palate, a soft mouth-nose separation plate is introduced to normalize the pathological swallowing and tongue functions which is decisive not only for feeding but also for the development of speech and the jaw. To date 209 children have been treated, among them 139 with a cleft palate. The surgical closure of the palate takes place at about 6 months. Thereby great store is set by creating a palatal and inner-nasal anatomy as close as possible to “normal” with a complete creation of the nasal passages and the velar ring muscle system. With all patients, the crafting of a residual hole-free palatal closure was successful, thereby creating ideal conditions for feeding and speaking. Decisive for feeding is the tongue function. With ultrasound there is a non-invasive method of study available to represent the physiological course of feeding. In a pilot study, ultrasound studies during drinking from the bottle before and after the palatal repair were carried out. Both pre-operatively with the mouth-nasal separator and postoperatively, similar action patterns of the tongue were seen: The nipple was held by the front part of the tongue and is compromised. With the sinking of the lower jaw a characteristic contraction movement of the back part of the tongue was initiated. The milk was pressed out of the nipple into the oral cavity and the bolus transported dorsally. The oral phase of the act of swallowing is completed by the raising of the base of the tongue and the larynx and the milk further transported in the direction of the pharynx. This pattern of movement will be demonstrated with typical examples and compared with data from the literature.

Key words

Cleft lip and palate, surgical conditions for feeding at the breast, with breastfeeding aids, with the bottle, ultrasound of the feeding infant with a cleft lip and palate.

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