

Combined Repair Surgery for Cleft Lip and Cleft Palate: A 4-Year Clinical Experience

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Surgical repair is the only method of treatment for patients with cleft lip or/and palate. The cleft lip surgery is usually done when the child is 3 to 6 months old, while cleft palate repair is done between 2 and 3 years old in order to allow the palate to change as the child grows. Here we reported our experience of simultaneous surgeries for both cleft lip and cleft palate with satisfactory results in 48 patients who have not done cleft lip repair at early age. It reduced the treatment time, the patients' pain, as well as the financial burden of the patients' family by one operation.

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CLEFT lip and palate are congenital maxillofacial deformities with a high birth prevalence in the world (1, 2). In China, this common malformation occurs at a rate of 1.6 per 1000 live births (3). Genetics can play a part, but most often the reason a baby is born with a cleft is unknown (3-6). A cleft affects a child's appearance but can also interfere with important bodily functions such as nutrition, speech, and hearing (1, 2). For the treatment, surgical repair is still the only method (7, 8). Usually cleft lip and palate surgeries are separated and are rarely performed simultaneously (7, 8). In China, in most times, cleft lip repair is done when the child is 3 to 6 months old, and cleft palate repair is done when the child is older, between 2 and 3 years old (9). This age appears to be advantageous partially because healing times are fast, the patient's memory of the recovery process is short, and the area around the cleft hasn't had much of

a chance to develop surrounding tissues in an abnormal manner (9). However, some parents bring their children to the hospital when they are older than 3 years old due to financial problem, lack of knowledge, and other reasons. Since 2008, we have seen 48 patients who have not done cleft lip repair at early age. We have performed simultaneous surgical repair for these patients of congenital cleft lip and palate with good results, and here we reported our experience with these patients.

CLINICAL DATA

Data was collected from 48 patients with congenital cleft lip and palate in the Department of Stomatology, Juancheng People's Hospital, China, collected from May 2008 to May 2012. They included 27 cases of unilateral complete cleft lip with unilateral complete cleft palate and 21 cases of bilateral cleft lip with unilateral complete cleft palate (Table 1). The patient age is

2.5-6 years old with the average age of 4.1 years old. (Table 1)

METHODS

The antibiotics, 0.25% chloramphenicol nasal drops, were used for pre-operative prophylactic purpose. The surgeries have been done with oral intubation and under intravenous sedation/general anesthesia. Cleft palate repair has been done first using the techniques of von langenbeck (two-flap method) and palatopharyngeal ring tied operation. Unilateral cleft lip repair has been down using Triangular Flap Method. Bilateral cleft lip repair has been down using straight line repair and rectangular flap repair methods. An iodoform gauze packing is inserted in the relaxation incision to support the mobilized soft palate and to cover up the exposed bone area. Labial arch was used for tension releasing and fixing. Antibiotics were used after surgery to prevent infections. Lip sutures were

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Table 1: Demographic characteristics of patients.

	Male (n=23)	Female (n=25)
Age (yr)	4.1±1.2	4.0±1.1
UCL with UCP	11 (48%)	16 (64%)
BCL with UCP	12	9
Surgical time (min)	160±43	161±57
Blood loss during surgery (ml)	145±35	142±42
Postoperative problems	2 cases of perforation	no

UCL: unilateral cleft lip; UCP: unilateral cleft palate; BCL: bilateral cleft lip

removed in five days, and the iodoform gauze was removed in 7-10 days after surgery. Palate sutures were removed at day 14 after surgery. Liquid diet was given for two weeks after surgery and then changed to semi-solid food for two more weeks. Regular food and voice training were given one and two months after surgery respectively.

RESULTS

The average operation time was 160 ± 52 min. The average intraoperative blood loss was about 143 ± 39 ml (Table 1). There were no intraoperative or postoperative blood transfusions needed. Postoperative incision healed with no complications in 46 cases. Only two patients had a perforation in the junction of the hard and soft palate, and the diameter of the hole was about 0.3 cm. One year late after surgery, the voice and pronunciation was evaluated by the methods that are used in China and were previously reported (10). It showed that the voice and pronunciation was significantly improved one year after surgery compared with that before surgery.

DISCUSSION

The fastest stage of language development in child is 0-3 years old. The functional speech has been basically established in five years old. In China, in most times, cleft lip repair is done when the child is 3 to 6 months old, and cleft palate repair is done when the

child is older, between 2 and 3 years old (9). This allows the palate to change as the baby grows. Doing the repair when the child is in this age will help prevent further speech problems as the child develops. However, many children with clinical findings in our country seek for treatment usually over three years old. If the cleft palate repair and cleft lip repair are separated, and the cleft palate repair is performed one year later after cleft lip repair, it would be more difficult for speech recovery and training. In this report, we simultaneously repaired cleft lip and cleft palate and the results showed that the effects or surgery were satisfied. It reduced the treatment time, the patients' pain, as well as the financial burden of the patients' family by one operation. ■

CONFLICT OF INTERESTS

None

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