Cervical esophagogastrostomy dehiscence after gastric pull-up for type I esophageal atresia. Case report of a patient successfully treated with fibrin glue and a review of the literature. [Spanish]

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Abstract:

INTRODUCTION: The treatment of choice for type 1 esophageal atresia is surgery to re-establish continuity of gastrointestinal tract by colon interposition or gastric pull-up. Incidence of cervical anastomosis dehiscence is 20-40%. Although it is not a serious complication, it requires a fasting period and nutritional support to achieve spontaneous closure within 2-4 weeks. AIM: To report successful treatment of cervical esophageal-gastric anastomosis dehiscence after gastric transposition using fibrin glue. CASE PRESENTATION: A 17-month-old female child, the product of a first pregnancy, was delivered by caesarean section at 35 weeks gestation in response to fetal distress; the child weighed 1,800 g at birth and had APGAR score of 6-8. At 7 h of extra-uterine life, she was diagnosed with type I esophageal atresia and cervical esophagostomy was performed. Stamm-type gastrostomy was used for enteral nutrition until she was 17 months of age. With a weight of 9 kg, the child underwent esophageal substitution with transhiatal gastric transposition, cervical anastomosis, and jejunostomy. On the seventh day postsurgery, surgical wound infection was observed, producing purulent material and saliva (45 ml in 24 h). On the 10th day, esophagogram was performed that revealed 30% anastomosis dehiscence and 2-cm fistulous tract with no abscess. On the 11th day, 3 ml of fibrinogen (80 mg/mL) activated with thrombin (1,000 uL/mL), both of human extraction (Quixil, Omrix, Tel Aviv, Israel) was applied through fistula tract. RESULT: The following day, the patient presented with cough access, expelling the fibrin glue plug.

A similar dose was given that achieved a null output volume during the following 24 h. Subsequently, she began oral feeding with liquids, incorporating a normal diet over the following 2 months. At present, she is 3 years 2 months of age, weighs 15 kg, and is able to eat any kind of food without dysphagia. CONCLUSIONS: We demonstrated that use of biological adhesives can shorten time required to achieve closure of high- and low-output volume fistulas. In the present case, use of fibrin glue to obliterate the fistulous tract gave satisfactory results, reducing time to spontaneous closure and facilitating early commencement of oral feeding. Cases of enterocutaneous fistula closure reviewed in the literatura generally involve adults, but the technique can be used in children with this type of complication.