

Role of fibrin glue in the prevention of cervical leakage and strictures after esophageal reconstruction of caustic injury.

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Abstract:

Background: The colon is the organ most commonly used for esophageal reconstruction after severe caustic injury. Complications of cervical anastomosis are very common. Fibrin sealant may reduce the incidence of complications in this high-risk anastomosis. The purpose of the present study was to assess the role of fibrin glue in the prevention of leakage and stricture at cervical colo-esophageal anastomoses in children treated with esophageal reconstruction after caustic injury.

Methods: This was a case-control study of children with caustic esophageal injury treated surgically with esophageal reconstruction over a 10-year period. In the study group 3-4 ml of fibrin glue was placed over the anastomosis. The following variables were assessed: age, sex, weight, leakage or stricture at the cervical anastomosis, morbidity, and mortality. **Results:** The study group included 14 children, and the control group included 24 children. There were no differences in the distributions of sex, age, anthropometric variables, or preoperative laboratory test results. All children underwent esophageal replacement with colon substitution through the retrosternal space. Dehiscence and leakage at the cervical anastomosis were observed in 50% of children in the control group and 28.5% of children in the study group ($P = 0.17$). Strictures were observed in 7.15% of the study group and 20.8% of the control group, and 5 and 17 children, respectively, developed cervical complications ($P = 0.03$). There were no differences in major complications, and mortality was similar in the two groups ($P = 0.60$). **Conclusions:** Fibrin glue, when used as a sealant for cervical

coloesophageal anastomosis, can reduce the risk of leakage and stricture. © 2009 Societe Internationale de Chirurgie.