

Long-term assessment of the treatment of recurrent tracheoesophageal fistula with fibrin glue associated with diathermy.

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Abstract:

PURPOSE: Recurrent tracheoesophageal fistula (RTF) is a serious common complication of the surgical treatment of esophageal atresia. We report the results of our technique of bronchoscopic treatment of RTF with fibrin glue (Tissucol), with a follow-up of over 1 decade.

METHODS: A retrospective review between 1993 and 2004 was conducted, including all patients diagnosed with RTF and treated bronchoscopically with Tissucol, with over 1 year of follow-up. The procedure was implemented under general anesthesia using a rigid neonatal bronchoscope. A magnification chamber and previous diathermia using a urethral catheter were used in the latter 4 patients. The fibrin glue was injected through a clear catheter. The number of endoscopic sessions per patient was limited to 3.

RESULTS: Seven patients were treated, with evidence of fistular closure in 6 (85%). One patient with satisfactory results, but a follow-up of 4 months, was not included. The age at bronchoscopy ranged from 14 to 20 days (mean, 16.7 days), and a total of 12 sessions were required (mean, 1.7). In the latter 4 patients, diathermia was associated with good results in all and a lower number of sessions (mean, 1.5). All patients were evaluated clinically and radiologically, and a control endoscopy was performed in 4 patients. The follow-up lasted from 2 to 11 years (mean, 7.4 years).

CONCLUSIONS: Because we started to use Tissucol (1994), other authors have reported successful isolated cases, but a relatively large series and a long-term follow-up were lacking. We consider that the success of the procedure depends on several technical factors such as an early diagnosis, before epithelium is formed in the fistula, and the use of initial diathermia, associated in the latter 4 patients. The results obtained with 85% success with a follow-up over 1 year show that the fibrin adhesive is the reference substance for the treatment of RTF; we recommend its endoscopic application associated with diathermia as initial measure.