Effect of routine fibrin glue use on the duration of air leaks after lobectomy.

Authors: Fleisher AG, Evans KG, Nelems B, Finley RJ

Publication Date: 1990

Abstract:

The effectiveness of fibrin glue as a sealant to reduce postoperative air leaks after pulmonary lobectomy was evaluated in 28 consecutive patients between November 1988 and May 1989. A fibrin glue spray was used in 14 patients, and 14 patients served as controls. Assignment of either group was made before thoracotomy. Nine male and 5 female patients with a mean age of 63.8 years were in the fibrin glue experimental group, and 8 male and 6 female patients with a mean age of 59 years, in the control group. An equal number of complete and incomplete fissures were in each group. All fissures were handled in the same way (stapled). Two milliliters of fibrin glue was applied through a double-syringe delivery system and sprayed on the staple line and any cut surface of the inflated lung just before thoracotomy closure. The fibrin glue-treated group had a mean air leak duration of 2.3 +/- 3.7 days, chest tube drains for 6 +/- 4.1 days, and a postoperative hospitalization of 9.8 +/- 3.1 days. The control group had a mean air leak duration of 3.3 +/- 3.3 days ($p = 0.94$), chest tube drains for 5.9 +/- 3.9 days ($p = 0.95$), and a postoperative hospitalization of 11.5 +/- 3.9 days ($p = 0.21$). We conclude that the routine use of a fixed quantity of fibrin glue is not effective in reducing the duration of air leaks, chest tube drainage, or hospitalization after uncomplicated pulmonary lobectomy.