

The pleural and human fibrin glue sandwich: a quick and effective post-pneumonectomy bronchial stump coverage technique.

Authors: Leo F, Galetta D, Spaggiari L

Publication Date: 2008

Abstract:

BACKGROUND: Protection of the bronchial stump after pneumonectomy reduces the incidence of bronchopleural fistula. However, which technique provides the most satisfactory results remains open for debate.

MATERIALS AND METHODS: We describe a study in which a bronchial stump coverage technique was performed using 2 layers of human fibrin glue (Tissucol; Baxter, Deerfield, IL USA) with an interposed patch of parietal pleura. From July 2005 to June 2007, this technique was used in 31 consecutive patients after standard pneumonectomy by a single surgeon.

RESULTS: None of the patients developed early or late bronchopleural fistula, and no clinical adverse reaction was recorded. During the same period, alternative stump coverage techniques were used by different surgeons in 71 pneumonectomies. In this group, the rate of fistula was 6% (4 patients).

CONCLUSION: These preliminary data demonstrate the feasibility of the technique and suggest that it is at least equivalent to the other type of flaps used. The main advantages of this technique are the restoration of the natural separation between the mediastinum and pleural cavities, as well as the reduced operating time (duration 5 minutes).