

Bronchopleural fistula

Roukema, J.A.; Verpalen, M.C.P.J.; Lobach, H.J.C.; Palmen, F.M.L.H.G.

Published in:

The Journal of Thoracic and Cardiovascular Surgery

Publication date:

1992

[Link to publication](#)

Citation for published version (APA):

Roukema, J. A., Verpalen, M. C. P. J., Lobach, H. J. C., & Palmen, F. M. L. H. G. (1992). Bronchopleural fistula: The use of tissue glue. *The Journal of Thoracic and Cardiovascular Surgery*, 103(1), 167-167.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy

If you believe that this document breaches copyright, please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Because the patient's condition did not improve with tube thoracostomy and other conservative measures, a second right-sided thoracotomy was performed. Because of the preceding thoracotomy, complicated by empyema and followed by radiation therapy to the mediastinum, this procedure was very difficult. There was severe fibrosis of the remaining pleural cavity, and anatomic structures were difficult to identify. The fistula was found as a small hole in a massive fibrotic mediastinum. Isolation of the bronchial stump being impossible without a major dissection, we decided to use tissue glue to obliterate the fistula under direct vision. After this procedure the fistula was covered with an intercostal muscle pedicle. Although the intrapleural infection required further treatment postoperatively, the patient recovered without severe complications. At present, more than 1 year after treatment, there are no signs of fistula recurrence.

Endoscopic gluing of bronchopleural fistulas is a promising alternative to surgical treatment. So far we have used this technique successfully in five consecutive patients. However, if endoscopic application of tissue glue fails, intraoperative gluing should be considered to facilitate the surgical procedure in selected patients, as was demonstrated in this case.

J. A. Roukema, MD, PhD

M. C. P. J. Verpalen, MD

H. J. C. Lobach, MD

F. M. L. H. G. Palmes, MD

St. Elisabeth Hospital

Department of Surgery

5000 LC Tilburg, The Netherlands

Bronchopleural fistula: The use of tissue glue

To the Editor:

Postpneumonectomy bronchopleural fistula is a dreaded complication with high morbidity and mortality.¹ Although operative treatment is difficult, the few published reports on endoscopic closure of bronchial fistula with tissue glue are promising.²⁻⁴ This procedure, however, is not always successful. We would like to report our experience with intraoperative application of tissue glue after failure of closure by the endoscopic route.

A 64-year-old man underwent a right-sided pneumonectomy. His postoperative course was complicated by empyema, but with conservative measures his condition improved and he was discharged 3 weeks after the operation. There were no signs of a bronchopleural fistula. Postoperative radiotherapy up to 5000 cGy was given to the mediastinum because some of the removed mediastinal lymph nodes showed tumor involvement. One year later the patient was rehospitalized because of a small right-sided bronchopleural fistula. Tissue glue (Histoacryl) was injected by means of a fiberoptic bronchoscope, but although we repeated this procedure three times during the following days the fistula did not close.

REFERENCES

1. Williams NS, Lewis CT. Bronchopleural fistula: a review of 86 cases. *Br J Surg* 1976;63:520-2.
2. Torre M, Chiesa G, Ravini M, et al. Endoscopic gluing of bronchopleural fistula. *Ann Thorac Surg* 1987;43:295-7.
3. Jessen C, Sharma P. Use of fibrin glue in thoracic surgery. *Ann Thorac Surg* 1985;39:521-4.
4. Regel G, Sturm JA, Neumann C, et al. Occlusion of bronchopleural fistula after lung injury: a new treatment by bronchoscopy. *J Trauma* 1989;29:223-6.