Fibrin Glue and Bioabsorbable Felt Patch for Intraoperative Intractable Air Leaks.

Authors: Miyamoto H., Futagawa T., Wang Z., Yamazaki A., Morio A., Sonobe S., Izumi H., Hosoda Y., Hata E.

Publication Date: 2003

Abstract:

Objective: We worked to devise a new way to prevent postoperative persistent air leaks in high-risk pulmonary surgery patients. Methods: From November 1993 to June 2002, 60 patients with difficult to control intraoperative pulmonary air leakage were treated using bioabsorbable polyglycolide felt patches soaked in fibrin glue to cover the leakage site. Results: After application, the felt patch adhered tightly to the lung surface without peeling off, enabling good leakage closure with only 2 ml of fibrin glue used. Air leakage was controlled successfully in 52 (86.7%) of the 60. Four of the 8 patients in whom this method failed to stop air leakage also developed mild pyothorax, with 2 requiring a second operation by video-assisted thoracic surgery. Leakage was eventually controlled in all patients, with no postoperative deaths relating to air leakage. Conclusions: Fibrin-glue-soaked bioabsorbable felt patches effectively seal intraoperative intractable air leaks. Felt patch use may increase the risk of postoperative infection. It should be considered for use on patients with fistulas that cannot be controlled by direct closure or otherwise intraoperatively and who may potentially develop uncontrollable air leakage postoperatively.