

Efficacy of a pedicled pericardial fat pad fixed with fibrin glue on postoperative alveolar air leakage.

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Abstract:

The purpose of this randomized trial was to investigate the effect of using a pedicled pericardial fat pad fixed with fibrin glue on postoperative alveolar air leakage. Thirty consecutive patients with lung cancer, who had moderate alveolar air leaks after pulmonary resection, were randomized into two groups: in group A fibrin glue was applied onto the surface of the leaking raw lung and in group B, after applying fibrin glue in the same manner as in group A, a pedicled pericardial fat pad was immediately fixed to the leaking lung surface with fibrin glue. The duration of the postoperative air leakage and chest tube drainage was recorded. In 6 of 15 patients in group B the air leakage ceased within the first 24h after pulmonary resection, while in group A only 1 of 15 patients showed a cessation of the air leakage, and a significant difference was noticed between the two groups ($P = 0.0309$). The duration of the postoperative air leakage was 4.8 ± 4.6 days in group A and 3.6 ± 3.4 days in group B. The pedicled pericardial fat pad fixed onto the surface of the leaking raw lung using fibrin glue was found to reduce alveolar air leakage after pulmonary resection.