Cauterization versus fibrin glue for aerostasis in precision resections for secondary lung tumors.

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Abstract:

BACKGROUND: Aerostasis control in multiple resections for metastatic pulmonary diseases is a real problem. Long-term air leaks prolong postoperative hospitalization and result in an additional financial burden on the healthcare system. We focused our study on the evaluation of fibrin glue (Tissucol) as an effective means to minimize or prevent air leaks.

METHODS: We initiated a case-control study whereby 100 patients underwent precision resections for lung metastases. The subjects were divided into 2 groups, both with 50 patients: group 1 was treated with fibrin glue and group 2 with cauterization. Evaluation parameters consisted of the following: air leak duration, expected complications, drain time, and in-hospital stay.

RESULTS: In group 1, air-leak time was 2.68 +/- 1.72 days, versus 7.80 +/- 8.52 for group 2 (P <.001). In group 1, there were 2% complications, whereas in group 2 there were 28% (P <.001). Drain time was 4.54 +/- 1.83 days for group 1 and 9.54 +/- 8.35 for group 2 (P <.001). In-hospital stay was 6.54 +/- 1.83 days for group 1 and 11.54 +/- 8.35 for group 2 (P <.001).

CONCLUSIONS: In the group treated with fibrin glue, we observed significant advantages. Our experience shows that the use of fibrin glue can improve aerostasis control in nonanatomical resections with high risk of air leak.