Fibrin glue for sealing the needle track in fine-needle percutaneous lung biopsy using a coaxial system: Part II--Clinical study.

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Abstract:

PURPOSE: Following percutaneous lung biopsy (PLB), we used fibrin glue as a sealant in 26 patients for the purpose of decreasing the incidence of pneumothorax.

METHODS: All 26 patients (group A) had chronic obstructive pulmonary disease (COPD). The results for group A were compared with a control group of 32 patients (group B), also with COPD and in whom fibrin glue was not used. All biopsies were conducted under computed tomography (CT) using a coaxial needle system consisting of 19-gauge and 22-gauge needles.

RESULTS: Pneumothorax developed in five patients (19.2%) in group A and in one instance, drainage was required (3.8%). In group B, pneumothorax developed in 13 patients (40.6%) and in six instances (18.8%) drainage was required. Comparing the use of chest-tube drainage in the two groups, a statistical significance was observed, $p < 0.0025$). No adverse reactions related to the fibrin glue were observed.

CONCLUSION: Our results indicate that fibrin glue is a safe sealing material for lung PLB and serves to decrease the incidence and, in particular, the severity of pneumothorax, especially in high-risk patients.