Diagnostic Approach in Parenchymal Lung Diseases: Transbronchial Lung Biopsy? Cryobiopsy?

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Objectives: Diagnosis of interstitial lung diseases requires a multidisciplinary approach and a gold standard for histological diagnosis is open lung biopsy. Bronchoscopy is the most commonly used diagnostic tool in lung lesions. The diagnostic success of conventional transbronchial lung biopsy has varied between various parenchymal lung diseases, and its use as an alternative diagnostic tool has increased in recent years due to the use of cryoprobes with adequate sampling and low rate of side effects.

Methods: The aim of this study is to compare the efficacy of concomitant conventional tranbrcorial lung biopsy (TLB) and cryobiopsy in 82 patients with parenchymal lung disease retrospectively.

Results: The mean age of the patients was 58.37±9.33. 72 patients (87.8%) were symptomatic. In 62.2% of the patients, radiological findings were widespread, and biopsy was performed in 63.4% of them from the right lower lobe. 45 patients (54.9%) were diagnosed with TLB and 75 patients (91.5%) were diagnosed with cryobiopsy (p=0.000). Hemorrhage was observed in 39 patients (47.6%), but only one had massive hemorrhage. Pneumothorax was observed in 6 patients (7.3%) and none of them required tube drainage.

Conclusion: Lung cryobiopsy is a promising technique for diagnosis of parenchymal lung diseases compared to transbronchial biopsy.

Keywords: Cryobiopsy, parenchymal lung disease, alternative diagnostic method