F-060
ENDOBRONCHIAL ULTRASONOGRAPHY WITH GUIDE SHEATH VERSUS
COMPUTED TOMOGRAPHY-GUIDED PERCUTANEOUS BIOPSIES FOR
PERIPHERAL LUNG LESIONS: A PROSPECTIVE STUDY WITH PROPENSITY
SCORE MATCHING ANALYSIS
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Objectives: It is still controversial which is a better choice for diagnosing peripheral pulmonary nodules without large sample sized prospective randomized trial. The aim of this study is to determine diagnostic accuracy, complications and patient tolerability of EBUS-GS and CT-guided percutaneous biopsy for peripheral lung lesions.

Methods: This was a prospective cohort study. Patients were divided into EBUS-GS group and CT guided biopsy group according to patient intent to treatment. The inclusion criteria included: CT proven peripheral pulmonary nodules with no clear pathological diagnosis, patients without contraindication of EBUS-GS or CT guided biopsy. Primary endpoints were adverse events and diagnostic accuracy of each procedure. Propensity score matching was used to eliminate the intergroup bias.

Results: From June 2014 to August 2015, 180 patients were included in the study, with 50 patients in EBUS-GS group and 130 in CT guided biopsy group. After matching, 50 patients in each group were included for analysis. There were no significant differences between the two groups in terms of gender, age, tumour size, pulmonary complications or ECOG performance status. Diagnostic sensitivity was 86% (43/50) for CT biopsy cases and 78% (39/50) for EBUS-GS cases (P > 0.1). Thirty six cases and 44 cases were diagnosed as malignant finally in CT group and EBUS-GS group separately. The sensitivity for malignancy was 91.7% (33/36) for CT-guided biopsy and 75.0% (33/44) for EBUS-GS (P < 0.01). The overall morbidity rate was 14% (7/50) for CT-guided biopsy group, including 4 cases with pneumothorax, and three cases with severe chest pain. While there was neither pneumothorax

Conclusion: The overall diagnostic sensitivity of EBUS-GS was comparable to CT-guided biopsy, but the sensitivity for malignancy was lower in EBUS-GS group. EBUS-GS had better tolerability and fewer complications, especially for patients with COPD or pulmonary interstitial fibrosis.

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