00288　Relationship of preoperative radiological findings and diagnostic yield of transbronchial biopsy using VBN and EBUS-GS

Top Author:　**Kenta Kambara**

First department of Internal Medicine, University of Toyama

Japan

Background and objective:
The bronchoscopy's diagnostic yield for lung peripheral malignancy was not enough to therapy for lung cancer. There are several reports about improvement of the diagnostic yield of transbronchial biopsy using virtual bronchoscopic navigation (VBN) and endobronchial ultrasonography with a guide sheath (EBUS-GS). Factors related to diagnostic yield of transbronchial biopsy using conventional bronchoscopy without VBN nor EBUS-GS were suggested in several reports. However, there were no reports about preoperative radiological finding related to diagnostic yield of transbronchial biopsy using VBN and EBUS-GS.
This study evaluates the preoperative radiological finding related to diagnostic yield of transbronchial biopsy using VBN and EBUS-GS on historogical diagnostic yield for peripheral malignancy.
Methods:
This was a retrospective study. Between Apr.2010 and Dec.2012, 288 patients who underwent lung peripheral biopsy were enrolled. All patients were histologically diagnosed as having pulmonary malignancy.
Results:
The histological diagnostic yield was 72.4%. The diagnostic yield is higher in obviously detectable lesions in preoperative chest radiograph than in unclear lesions(80.8% vs 53.0% ; $p<0.001$). Concerning CT findings, CT sign is related to diagnostic yield (positive vs negative; 76.4% vs 42.3%; $p<0.001$). Lesion's size influence diagnostic yield (larger size ($>20.0mm$) vs smaller size ($<20.0mm$); 78.2% vs 61.3%; $p<0.01$). In the multivariate analysis, obviously detectable lesion in preoperative chest radiograph and CT sign in preoperative CT influence diagnostic yield individually.

Conclusions:
Preoperative factors related to diagnostic yield of transbronchial biopsy using VBN and EBUS-GS were not only lesion's size but also obviously detectable lesion in preoperative chest radiograph and CT sign in preoperative CT.