

Endobronchial ultrasonography with a guide sheath~How many times we need to do biopsy for correct diagnosis?~

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【Background】 Endobronchial ultrasonography with a guide sheath (EBUS-GS) enables us to confirm the place of pulmonary peripheral lesions. And positioning the guide sheath, we can repeat biopsy through same branch many times.

But we have a weak point that the tissues we collect are sometimes small. Not only to diagnose correctly, we need to check oncogene mutation of tumor with tissues. We investigated retrospectively whether a diagnostic yield would improve, when carrying out the biopsy how many times with each fiber (BF-1T260 or BF-P-260F).

【Method】 In 187 cases we have conducted bronchoscopic examination since January 2012 to October 2013 at our hospital. We assessed 147 cases that we can diagnose correctly and get number labels of tissues.

【Result】 The median age of 147 patients is 74 years (range, 45 to 90 years), 92 patients are male, 55 patients are female. We achieved correct diagnosis in 98 cases with BF-1T260. Median time of biopsy is 9th (range, 2 to 17). The accumulation diagnostic yield exceeded 95% in the 6th biopsy.

We achieved correct diagnosis in 49 cases with BF-P-260F. The median time of biopsy is 10th (range, 3 to 18). The accumulation diagnostic yield exceeded 95% in the 9th biopsy.

The case which is diagnosed as lung adenocarcinoma and is investigating EGFR mutation was an example of 56, and the all cases had adequate tissue to assess EGFR mutation.

【Conclusion】 In order to decide diagnosis, BF-P-260F needs many times of a biopsy, more than BF-1T260.