

# COMPARISON ANALYSIS OF EBUS TBLB RESULT: BRUSHING AND FORCEPS FOR PERIPHERAL PULMONARY NODULES IN JAKARTA

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## <B>Background</B>

The Endobronchial ultrasound-guided transbronchial lung biopsy (EBUS-TBLB) is a new diagnostic method for the diagnosis of pulmonary lesions in our center. but it is not considered to be the first choice in investigation of solitary pulmonary nodules (SPN). This study was designed to investigate about comparison analysis of EBUS TBLB result from brushing and forceps for peripheral pulmonary nodules. The main idea of this study was to determine the sensitivity and specificity of bronchial brushings and forceps in TBLB at Persahabatan Hospital, Jakarta.

## <B>Methods</B>

Performed a retrospective study on 165 patients who had underwent fiberoptic bronchoscopy in lung mass of X-rays and thorax CT-Scan at Persahabatan Hospital from January 2009 to December 2012. Lung mass proved to be malignant by cytology and histology of the data contained in the patient's medical record.

## <B>Result</B>

Of 165 patients with lung cancer underwent brush and forceps biopsy through a fiberoptic bronchoscope. The biopsy was taken from the area of suspected malignancy which had been brushed. The EBUS TBLB data, consisted of 119 males (72.1%) and 46 female (27.9%). Age range 20-89 years with an average of  $55.12 \pm 12.752$  years. On bronchial brushings from 165 patients, 63 (38%) showed positive results consisted of adenocarcinoma 29 (17.6%), squamous cell carcinoma 4 (2.4%), non small cell carcinoma 6 (3.6%), small cell carcinoma 1 (0.6%), others (laryngeal nodules, necrotic tissue and fibrotic tissue) found 23 (13.9%) and no sign of malignant cells 102 (61.8%). Whereas from bronchial biopsy of 165 patients, 50 (30%) showed positive results consisting of adenocarcinoma 33 (20.0%), squamous cell carcinoma 5 (3.0%), non small cell carcinoma 7 (4.2%), small cell carcinoma 3 (1.8%), others (tuberculoma, aspergillosis) 2 (1.2%), unrepresentative preparations 10 (6.1%) and no sign of malignant cells 105 (63.6%).

## <B>Discussion</B>

Adenocarcinoma present predominantly in lung cancer account for approximately more than 30% of all cases. Brushing provide the highest yield of technique used to obtain sample from lesion. This benefit results from combining the advantages of the brush and a needle.

## <B>Conclusion</B>

Bronchial brushing and forceps biopsy have a similar cell typing results. The diagnostic result of bronchial brushing for malignancies is higher than forceps biopsy. Both procedures must be taken into consideration in the management of individual cases and combine both techniques will increase the percentage of diagnostic.