

## Low Sensitivity Of Trans Bronchial Biopsies In Diagnosing Interstitial Lung Diseases

**W. Thijs<sup>1</sup>, R. Snooks<sup>2</sup>, S. Fletcher<sup>2</sup>**

<sup>1</sup>Spaarne Gasthuis, Hoofddorp, Netherlands, <sup>2</sup>University Hospital Southampton, Southampton, United Kingdom

**Corresponding author's email: willemienthijs@hotmail.com**

### Rationale:

A diagnosis of interstitial lung disease (ILD) is based on clinical and radiologic evidence and if necessary tissue verification. High-resolution computed tomography (HRCT) and video-assisted thoracoscopic lung biopsy (VATS) are important tools in the diagnosis of ILD. In sarcoid, endosonography with aspiration of intrathoracic lymph nodes is a safe and more sensitive procedure than transbronchial lung biopsies (TBLB). Despite these new techniques TBLB is still recommended in ILD guidelines (e.g. the British Thoracic Society 2008). There are few studies which have evaluated the role of TBLB in the context of ILD excluding sarcoidosis. The aim of this study is to evaluate the clinical utility and risk of pneumothrax after TBLB in ILD.

### Methods:

This is a retrospective cohort study of patients suspected of ILD who underwent TBLB between January 2010 and July 2015 in the University Hospital Southampton (United Kingdom). In this period over 1200 patients with a new diagnosis of ILD are seen in clinic of which only 36 underwent TBLB and this amount declined over the years. All procedures were documented in the hospital database (HICCS). Indication for TBLB, final diagnosis and lung function data were collected from the electronic patient records. All radiological reports made after the procedure were reviewed. Data from patients with a diagnosis of sarcoidosis and ILD were reviewed, TBLB that aided the ILD diagnosis was considered sensitive.

### Results:

65 patients underwent TBLB, 29 of these for indications other than ILD. 36 adults suspected to have an ILD underwent a TBLB. 13 adults were diagnosed with sarcoidosis mean age of 47 (SD 15) years, mean FVC of 85 (SD 21) % predicted and 35 % were men. The adults with other ILD diagnosis had a mean age of 60 (SD 16) years, FVC of 80 (SD 20) % predicted and 30% were men. The sensitivity of TBLB in sarcoid was 62% and in other ILD 39% (results for TBLB that aided the ILD diagnosis are shown in table 1). 97% of patients underwent a chest x-ray after TBLB, the incidence of an iatrogenic pneumothorax was 8 %.

### Conclusion:

The present data suggest that the sensitivity of TBLB in ILD is low and there is a risk of pneumothorax therefore TBLB has a limited role in the diagnosis of ILD. What that place of TBLB in ILD should be, requires further research to improve power and generalization.

Results for TBLB that aided (n=9) non sarcoid ILD diagnosis (n=23)

CT differential	Histology	Does biopsy add?
hypersensitivity pneumonia (HP), atypical infection	HP	yes
HP, Cryptogenic organizing pneumonia (COP)	COP	yes
HP	HP	agrees does not add
left ventricular failure, Nitrofurantoin lung	HP	yes
acute interstitial pneumonia (AIP), infection, HP	organizing pneumonia (OP)	yes
Respiratory bronchiolitis interstitial lung disease (RB-ILD)	RB-ILD	agrees does not add
HP	HP	agrees does not add
drug-induced lung toxicity, HP	HP	yes

CT suggestive of ILD, no differential	HP	yes
---------------------------------------	----	-----

This abstract is funded by: None

**Am J Respir Crit Care Med 193;2016:A6230**

**Internet address: [www.atsjournals.org](http://www.atsjournals.org)**

**Online Abstracts Issue**