

# European Respiratory Society Annual Congress 2012

**Abstract Number:** 1510  
**Publication Number:** P292

**Abstract Group:** 1.4. Interventional Pulmonology

**Keyword 1:** Bronchoscopy **Keyword 2:** Imaging **Keyword 3:** Monitoring

**Title:** The role of transthoracic ultrasound (TTS) in the diagnosis and management of post transbronchial lung biopsy (TBLB) pneumothorax (PTX)

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**Body:** BACKGROUND TTS increasingly being used to detect PTX, however its utility in diagnosis and management of post TBLB PTX largely unknown. OBJECTIVE To evaluate the accuracy of TTS in detection of post TBLB PTX. SUBJECTS AND METHODS TTS performed on 379 consecutive patients undergoing flexible bronchoscopy and TBLB (n=113). Disappearance of sliding lung and comettail artifacts considered evidence of PTX. Upright chest radiography (CXR) was performed after 2 hours of TBLB. CT chest performed in case of discrepancy between TTS and CXR. PTX was sonographically monitored by noting position of the lung point 2 hrly. RESULTS PTX occurred in eight (7.1%) of TBLB patients. TTS depicted all cases of PTX while CXR did not depict one PTX, which was confirmed on CT. All PTX diagnosed immediately post procedure by TTS in the bronchoscopy suite itself. Sensitivity, specificity, positive predictive value, negative predictive value, and overall accuracy were all 100% for TTS and 87.5%, 100%, 100%, 99.6%, and 99.6%, respectively, for CXR. The 95% confidence intervals (CI) for the sensitivity, negative predictive value, and overall accuracy were 46.7% to 99.3%, 95.6% to 100%, and 56.1% to 100% for CXR. Any shift of the lung point towards the base of lungs(below Mid thoracic line) favored single time aspiration (done in 2 cases) or ICTD insertion(1 case),while conservative management done in cases where lung point shifted towards apex(Above Mid thoracic line). CONCLUSION These preliminary results suggest that TTS is as effective as CXR in the detection of PTX after TBLB and may become the method of choice for excluding, diagnosing, and monitoring PTX after TBLB.