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[WCBIP] EBUS & EUS

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**Case Report:** NO

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#### Background:

The unknown pathogens responsible for non-bacterial pulmonary infection remain a diagnostic challenge. The usefulness of bronchoscopy with radial probe endobronchial ultrasound (EBUS) in the diagnosis and management of patients with atypical pulmonary infection was investigated.

#### Design:

Retrospective analysis.

#### Methods:

The diagnostic yields of EBUS for patients with atypical pulmonary infection treated in a tertiary university hospital between December 2007 and December 2010 were analyzed.

#### Results:

A total of 78 patients with atypical pulmonary infection were enrolled in the study. The majority of those patients (n=57, 73%) also had underlying disease, such as diabetes mellitus (n=26) or malignancy (n=12). A total of 78 microorganisms were isolated or identified by histopathology, including *Mycobacterium tuberculosis* (n=59), *Aspergillus* (n=8), *Cryptococcus* (n=6), *Pneumocystis jiroveci* (n=3), and mucormycosis (n=2). The definitive diagnostic rate by EBUS was 82.1% (n=64), including 86.4% of *Mycobacterium tuberculosis* (51/59), 87.5% of *Aspergillus* (7/8), 100% of *Pneumocystis jiroveci* (3/3) and mucormycosis (2/2), and 16.7% of *Cryptococcus* (1/6). EBUS examination assists in both the diagnosis (80.1%) and management (78.2%) of patients. Pneumothorax was the only complication, which occurred in two patients (3%).

#### Conclusion:

Bronchoscopy with EBUS is a useful diagnostic tool for atypical pneumonia. This technique can be particular helpful in critically ill patients who cannot tolerate surgical intervention.

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