

# Usefulness of Endobronchial Ultrasound in Patients with Human Immunodeficiency Virus Infection and Mediastinal Lymphadenopathy.

Sánchez-Cabral O, Martínez-Mendoza D, Fernandez-Bussy S, Aspuru-García E, Rivera-Rosales R, Luna-Rivero C, Martínez-Orozco JA, Reyes-Terán G.

## Abstract

**BACKGROUND:** There are few published studies about the usefulness of endobronchial ultrasound (EBUS) in patients infected with human immunodeficiency virus (HIV). The clinical spectrum of likely diseases in this population is varied and differs from patients not infected with HIV.

**OBJECTIVE:** The aim of this study was to measure the usefulness of EBUS-guided transbronchial needle aspiration (EBUS-TBNA) in HIV-infected patients with mediastinal lymphadenopathy.

**MATERIALS AND METHODS:** We conducted an observational, cross-sectional, retrospective, descriptive study on patients with HIV infection and mediastinal lymphadenopathy who underwent EBUS-TBNA between September 2014 and April 2016. The patients' final diagnosis, regardless of the sample from which it was obtained, was considered the positive gold standard, and the absence of diagnosis was the negative. The study measured diagnostic accuracy of bronchoalveolar lavage (BAL), transbronchial biopsy (TBB), and EBUS-TBNA.

**RESULTS:** A total of 43 procedures were performed; 79.1% (34/43) of the patients were male, and the median age was 35 years (range, 22-66). The overall diagnostic yield including all types of samples was 90.7% (39/43); the yield of BAL was 50% (21), that of TBB 61.9% (26), and that of EBUS-TBNA was 60.5% (26). The combined yield of BAL with TBB was 69.8% (30); the yield of BAL with EBUS-TBNA was 86% (37) and that of TBB with EBUS-TBNA was 88.4% (38). The highest diagnostic accuracy was 97.7% for the combination of TBB and EBUS-TBNA.

**CONCLUSIONS:** The most common infectious diagnoses were tuberculosis, with a higher diagnostic accuracy using EBUS-TBNA than BAL. With malignancies, both EBUS-TBNA and TBB were useful. EBUS-TBNA is a minimally invasive diagnostic tool that should be considered in these patients.