Core Mediastinal Lymph Node Biopsy with Transbronchial Forceps – 14 Case Series in a Single Center

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Purpose
Endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) is a well-established technique for sampling mediastinal or hilar lymph nodes with highly diagnostic yields in lung cancer. However, EBUS-TBNA fails to provide robust histopathological evaluation of the lymph node architecture, cellular composition and growth pattern in lymphoma or sarcoidosis cases.

Using a transbronchial forceps (TBF) may increase the quantity and the quality of the tissue sample.

Methods
In this paper, we report the experience with a transbronchial forceps in the biotypical approach to mediastinal masses suspected to be a lymphoma or sarcoidosis. 14 consecutive cases of EBUS-TBNA associated with EBUS-TBF in the same lymph nodes were analyzed.

Results
- Performed under GA in 10/14 cases

- Failure rate - 21.4% (3 patients)
- TBF - better tissue samples for histological diagnosis (in terms of cellular density, presence of tissue micro fragments, degree of contamination) in 10/11 patients (90.9%)
- TBF - diagnosis in 7/10 patients (70%)

Conclusions
- In our experience, TBF safely provides diagnostic histologic specimens of mediastinal lymph nodes, with better tissue sample quality than TBNA.
- In selected cases of mediastinal diseases such as lymphoma and sarcoidosis, transbronchial forceps core biopsy could be considered a safe and valid diagnostic technique and maybe an alternative one to more invasive surgical approach.
- Prospective studies are needed.

Bibliography