Abstract

Background: Sarcoidosis is a multisystemic disorder of unknown etiology. Its diagnosis is based on compatible clinical and radiological features and supported by histological demonstration of epithelioid cell noncaseating granulomas with exclusion of other causes. Endobronchial ultrasound combined with transbronchial needle aspiration (EBUS-TBNA) has been proposed as a valuable tool in obtaining suitable tissue sample. The aim of this study was to evaluate the contribution of EBUS-TBNA to the diagnosis of stages I and II thoracic sarcoidosis in a community-based hospital. Methods: A prospective study was conducted in patients with suspected stages I and II pulmonary sarcoidosis, based on clinical and radiological data, who were being followed in our Interstitial Lung Disorders Outpatient Clinic or sent from other hospitals to our Respiratory Endoscopy Unit for diagnostic procedures. All suitable and fit patients underwent EBUS-TBNA between March 2010 and June 2013. We assessed demographic characteristics, radiological stages, cytological/histological examination and diagnostic techniques performed. Results: In the period considered 39 patients underwent EBUS-TBNA for suspected stages I and II pulmonary sarcoidosis and adequate samples were obtained in 38 (97.4%). Within this population, 33 (84.6%) patients had a definite diagnosis of sarcoidosis, of which 31 patients (93.9%) were confirmed to have epithelioid noncaseating granulomas by EBUS-TBNA. Four patients were submitted to surgical procedures (three to mediastinoscopy and one to open surgical lung biopsy). Data analysis allowed to calculate a sensitivity, specificity, positive predictive value, negative predictive value and diagnostic accuracy of 93.9%, 100%, 100%, 75.0% and 94.8%, respectively. No complications were observed. Conclusions: EBUS-TBNA is a valuable tool in the diagnostic workup of patients with suspected stages I and II thoracic sarcoidosis providing a substantial number of pathological confirmations and with few complications. Its high diagnostic accuracy precludes the need for more invasive procedures such as surgical biopsy.

Keywords

Diagnosis, Endobronchial ultrasound-guided transbronchial needle aspiration, Sarcoidosis.