



Letters to the Editor

The Contribution of Cell Blocks in the Diagnosis of Mediastinal Masses and Hilar Adenopathy Samples from Echobronchoscopy*

Aportación del bloque celular obtenido por ecobroncoscopia al diagnóstico de adenopatías y masas hiliares o mediastínicas

To the Editor,

We read with interest the article by Lourido-Cebreiro et al., entitled “The Contribution of Cell Blocks in the Diagnosis of Mediastinal Masses and Hilar Adenopathy Samples From Echobronchoscopy”.¹ In this article, the authors underline the benefits of cell blocks in the diagnosis of benign lesions, reporting that exclusive diagnoses were more frequent in benign disease (25%) than in malignant disease (0.9%). They also mention the greater utility of the cell block over cytological smears for immunohistochemistry studies that contribute to cancer typing.

Much more information can be obtained from a cell block, as a significantly greater number of immunohistochemical and molecular studies can be performed. These data are essential for new tailored lung cancer treatments,² particularly when diagnosis is often based on the small samples obtained by endobronchial ultrasound (EBUS)-guided techniques.³ We recently analyzed the contribution of cell blocks obtained by EBUS-guided aspiration in the cytological diagnosis of cancer.⁴ The study period was from May 2008 to September 2012, and the technique was performed using convex-probe EBUS (model BF-UC160F, Olympus, Tokyo, Japan), without the presence of a pathologist during the procedure. Samples were initially prepared in a conventional manner, using smears on slides with clot fixation in formol. This method was replaced in March 2011 with liquid based cytology (ThinPrep Cytolyt, Hologic Inc., Marlborough, MA, USA): in the end, 608 (44.2%) samples were prepared using the conventional method and 769 (55.8%) were prepared in liquid medium. We studied 1377 samples from 631 patients (mean age 64.1 years, standard deviation [SD] 12; male/female ratio 3.86). A total of 1342 (97.5%) of the samples were valid, and a cell block could be prepared from 704 (52.5%). The mean

size of lymph nodes or lesions from which a cell block was obtained (1.47 cm, SD: 0.76) was significantly greater ($P < .01$) than those that were processed for cytology only. Of 549 malignant samples, a cell block could be prepared from 320 (58.3%). Immunohistochemistry was performed in 222 (69.4%) and molecular markers were studied in 68 (21.3%). The cell block results led to a diagnosis of malignancy in 17 (5.3%) of the aspirates which returned a negative cytology study, and was the only diagnostic method in 3 cases of benign disease.

Like other groups,⁵ we would like to draw attention to the role of the cell block obtained by EBUS, not only in benign disease but also in the diagnosis of cancer, either as an exclusive diagnostic method, or in the characterization of malignancy based on immunohistochemical or molecular techniques.

References

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