are used in both. The main difference between the two procedures is the caliber of the needle, generally 18G, which can yield specimens 1 or 2 cm thick, depending on the particular characteristics of the needle and the lesion. The caliber means that the needle track must always be anesthetized. The pulmonologists practicing in our hospital use both techniques. Capalbo et al.[2] compared the two procedures in the diagnosis of pulmonary lesions, and reported a greater sensitivity for TFNAB (94.83%) compared to CNB (81.82%).

As confirmed by the literature, this technique has been used for years in the diagnosis of lung cancer, with an acceptable rate of complications.[3] The size of the specimen is greater than that obtained by the TFNAB, making it particularly suitable for studying genetic mutations in lung tumors, such as epidermal growth factor receptor (EGFR) and anaplastic lymphoma kinase (ALK), among others. Although some centers are capable of performing these determinations from cytological samples, these laboratory techniques are not as widely implemented as studies performed on the histological sample, and as Schneider et al.[4] demonstrated, CNB may be more cost-effective than TFNAB for the study of mutations.

In short, we believe that CNB should be included in paragraph 3.d on minimally invasive techniques of the SEPAR recommendations for the diagnosis and treatment of non-small cell lung cancer, along with bronchoscopy, blind transbronchial aspiration, endobronchial ultrasonography, gastrointestinal endoscopic ultrasonography, electromagnetic navigation bronchoscopy, fine needle aspiration biopsy, thoracentesis, pleural biopsy, and TFNAB, as another diagnostic procedure in non-small cell lung cancer.

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Core Needle Biopsy Versus Fine Needle Aspiration Biopsy in Diagnosing Lung Cancer☆

Biopsia con aguja gruesa versus punción aspiración con aguja fina en el diagnóstico del cáncer de pulmón

To the Editor,

The "Cytohistological confirmation and staging" section of the "SEPAR recommendations for the diagnosis and treatment of non-small cell lung cancer", published in 2016,[1] refers to transthoracic fine needle aspiration biopsy (TFNAB) as a technique for the transthoracic histological diagnosis of lung cancer (LC). This procedure is usually guided with computed tomography (CT) or ultrasound. Results show an overall sensitivity of at least 90% for the diagnosis of malignancy.[1]

For years, core needle biopsy (CNB) has yielded excellent results in the diagnosis of lung tumors that require a transthoracic approach.[2] This technique is also performed under CT scan or ultrasound guidance, the main difference being the size of the needle and, therefore, the size of the sample. Indications are similar to those for TFNAB, and it is used in peripheral lesions that cannot be reached using other procedures, and when there is discordance between the clinical probability of cancer and the results of the imaging tests.

The sample obtained by CNB also seems to be sufficient for the classification and molecular analysis of LC.[3] Even so, there is some controversy in the literature about which is the best technique for classifying these tumors or identifying mutations, such as epidermal growth factor receptor (EGFR) or anaplastic lymphoma kinase (ALK), among others, and which has a lower complication rate. In this respect, we found several studies comparing different techniques. Yao et al. concluded in an initial meta-analysis that there were no differences between the two LC diagnostic techniques, but that CNB might be more useful for identifying benign lesions.[2] More recent studies have shown similar results for the diagnosis of LC. Sangha et al., for example, reported that the sensitivity and specificity of CNB were 89% and 100% respectively, while for TFNAB they were 95% and 81%.[4] Moreover, although both techniques are effective for analyzing biomarkers and mutations, recent studies from Ocak et al. and Schneider et al. showed that CNB was more useful for identifying lesions, and showed an improved yield in these analyses.[3,5] The greater yield of CNB may be linked to the size of the sample.

None of these studies showed significant differences in complication rates with either technique, although in some cases, these may be higher with CNB.[2–4]

Taking into account these observations, a new recommendation could be made, following the methodology proposed in the "SEPAR recommendations for the diagnosis and treatment of non-small cell lung cancer" and using the same recommendation grades as the American College of Chest Physicians (ACCP) Grading System[1]:

- Both TFNAB and CNB are useful for the correct diagnosis of lung cancer and tumor classification on the basis of morphological characteristics and immunohistochemical studies (Grade 1B).

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