

## Endobronchial Ultrasound Guided Needle Sampling Without Aspiration: And the Cell Block?\*

### Punción guiada por ultrasonografía endobronquial sin aspiración: ¿y el bloque celular?

To the Editor:

We read with great interest the article by Rodríguez et al.<sup>1</sup> in which the authors present a study on mediastinal sampling using endobronchial ultrasound guided fine-needle capillary sampling (EBUS-FNC) instead of transbronchial needle aspiration (EBUS-TBNA), in which a negative pressure is applied via syringe. The authors report the interesting benefits of not applying suction to EBUS-guided puncture: the technique is simpler, procedure time is reduced, and adequate and representative material comparable to that of EBUS-TBNA may be obtained with less contamination from bleeding. However, a very important issue not highlighted in the article is the efficiency of the technique in obtaining cell blocks (CB). Madan and Guleria<sup>2</sup> recently expressed concern regarding the possible differential yield when the histological core is obtained without the application of suction.

The preparation of CB from EBUS-TBNA samples is a simple way to provide additional information in the diagnosis of lung cancer. In our experience<sup>3</sup> in lung cancer, CB obtained by EBUS-TBNA generally provided clinically relevant information in 83 of 270 patients (30.7%). Puncture was repeated up to three times and preservation of material for CB was possible in almost half of the aspirates. Of a total of 697 transbronchial aspirates, CB were available in 334 (47.9%). In 50 cases (7.2%), conventional extensions were not diagnostic while the CB were, and the malignancy diagnosed from extensions could be subtyped in four patients. Genetic analyses could also be performed from CB in 60% of patients with adenocarcinoma. CB samples were processed by air drying and coagulation on filter paper. For this, a blood sample is needed, and that is more likely to be obtained when negative pressure is applied with a syringe. Since the absence of suction produces less trauma, this technique is less likely to ensure a clot formation.

Several oncology societies<sup>4</sup> have published guidelines recommending the necessary identification of molecular abnormalities for the initiation of specific treatment. Even today and certainly in the near future, EBUS will face the challenge of

demonstrating its usefulness in the comprehensive analysis of all the newly available molecular studies<sup>5</sup> in advanced neoplastic diseases, for which histopathological samples obtained by biopsy or surgical techniques have been routinely used.

It must be shown that useful CB can be obtained (even if they are prepared in liquid medium) by FNC instead of TBNA in an adequate proportion of cases, without increasing the number of punctures. A direct comparison is needed of the equivalence of the yield of the CB material obtained by each technique in terms of amounts (differences in cellularity) and quality for immunohistochemistry and molecular analyses, and not only the purely diagnostic yield. Until such evidence is available, we believe that FNC can be considered a useful alternative in cases where contamination by bleeding for immediate examination may render the sample inadequate.

### Conflicts of Interest

The authors declare no conflicts of interest.

### References

- Rodríguez F, Seijo LM, Sánchez PA, Zulueta JJ. Modified technique for obtaining mediastinal samples with endobronchial ultrasound-guided transbronchial needle aspiration: results from a prospective observational study. *Arch Bronconeumol*. 2013;49:135–9.
- Madan K, Guleria R. Endobronchial ultrasound needle biopsy with and without aspiration: the “core” issue. *Chest*. 2013;143:281–2.
- Sanz-Santos J, Serra P, Andreo F, Llatjós M, Castellà E, Monsó E. Contribution of cell blocks obtained through endobronchial ultrasound-guided transbronchial needle aspiration to the diagnosis of lung cancer. *BMC Cancer*. 2012;12:34.
- Gómez JJ, de Castro J, Concha A, Felip E, Isla D, López-Ríos F, et al. Recomendaciones para la determinación de biomarcadores en el carcinoma de pulmón no microcítico avanzado. Consenso nacional de la Sociedad Española de Anatomía Patológica y de la Sociedad Española de Oncología Médica. *Rev Esp Patol*. 2012;45:14–28.
- Pao W, Girard N. New driver mutations in non-small-cell lung cancer. *Lancet Oncol*. 2011;12:175–80.

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## Etiological Pattern of Community-Acquired Pneumonia: Importance of the Geographical Factor\*

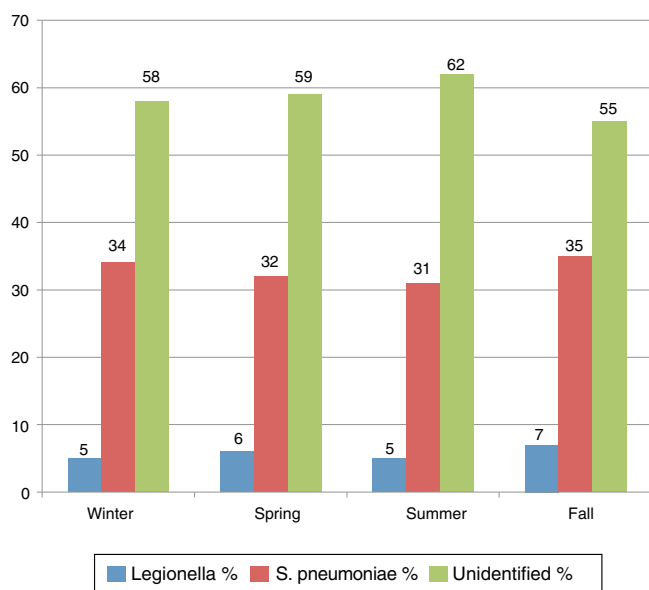
### Patrón etiológico de la neumonía adquirida en la comunidad: importancia del factor geográfico

To the Editor:

We read with interest the manuscript of Herrera-Lara et al.<sup>1</sup> recently published in *Archivos de Bronconeumología*. We welcome

this study, which shows the influence of season and climate on the etiology of community-acquired pneumonia (CAP), although only in patients admitted to the pneumology ward. This is one limitation recognized by the authors. Another is the lack of follow-up of patients discharged from the emergency department (ED), that account for more than 50% of the CAP cases seen in those units.<sup>2</sup> These data are in line with the data of our group,<sup>3</sup> and show the quantitative importance of this subgroup when calculating the overall etiology of the disease. Several factors must be taken into consideration when determining CAP etiology, including climate, season, age, place of employment, treatment, comorbidity, patient characteristics, concurrent viral epidemic, etc.<sup>4</sup> The most recent consensus guidelines for CAP point out that *Streptococcus pneumoniae* is the most common pathogen in outpatients (including those discharged), hospitalized patients, and intensive care

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**Fig. 1.** Seasonal distribution of causative pathogens of community-acquired pneumonia.

Winter: December to February, Spring: March to May, Summer: June to August, Fall: September to November.

patients (35, 43 and 42% of isolates, respectively). They also mention the increasing importance of *Legionella pneumophila*, which accounts for 6, 8 and 8% of the cases classified as above, respectively. These figures are consistent with those published by Herrera-Lara et al.,<sup>1</sup> who reported that 8.6% of cases are caused by *L. pneumophila*. Here, in Toledo, the climate tends toward colder, wetter winters and warmer, wetter summers: the average winter temperature in Toledo in 2009–2011 was 7.20 °C compared to the mean 9.72 °C reported in the study of Herrera-Lara et al.,<sup>1</sup> and accumulated rainfall was 54.3 L compared to their 35.2 L; average summer temperatures were 26.23 °C vs 24.6 °C, and rainfall was 15.9 L vs 8.27 L, respectively. We have studied the incidence of CAP according to the seasonal pattern and differences in frequency between *S. pneumoniae* and *L. pneumophila*, using the databases of several studies on the management of CAP in the years 2009–2011.<sup>3,5</sup> *S. pneumoniae* and *L. pneumophila* were systematically investigated in all patients with sepsis, admitted with pneumococcus and *L. pneumophila* serogroup 1 antigens in urine (membrane

immunochromatography-Binax NOW®). Blood and sputum cultures with direct seeding were requested for inpatients when possible (*Legionella*: direct immunofluorescence of *Legionella pneumophila* antigen), and 1698 CAP cases from ED were included (51% were admitted to hospital and etiologic diagnosis was obtained in 39.5%). The seasonal distribution compared with the study of Herrera-Lara et al.<sup>1</sup> was as follows: winter (38 vs 36.6%), spring (25 vs 20.2%), summer (8 vs 18.5%) and fall (31 vs 24.7%). Fig. 1 shows a similar distribution pattern for both in all seasons ( $P=NS$ ). Other diagnoses, such as atypical bacteria (2.5% for *Mycoplasma pneumoniae* and *Chlamydomphila pneumoniae*) and viral infection (0.5%–1%), showed no seasonal differences, although their proportions are likely to be underestimated, as they were not studied systematically. In conclusion, CAP etiology is influenced not only by the climate and season, but also by geographical location and other factors.

## References

- Herrera-Lara S, Fernández-Fabrellas E, Cervera-Juan A, Blanquer-Olias R. Do seasonal changes and climate influence the etiology of community acquired pneumonia? Arch Bronconeumol. 2013;49:140–5.
- Martínez Ortiz de Zárate M, González del Castillo J, Julián Jiménez A, Piñera Salmerón P, Llopis Roca F, Guardiola Tey JM, et al. Estudio INFURG-SEME: epidemiología de las infecciones en los servicios de urgencias hospitalarios y evolución durante la última década. Emergencias. 2013;25:368–78.
- Julián-Jiménez A, Palomo de los Reyes MJ, Parejo Miguez R, Laín-Terés N, Cuenca-Boy R, Lozano-Ancín A. Improved management of community-acquired pneumonia in the emergency department. Arch Bronconeumol. 2013;49:230–40.
- Torres A, Barberán J, Falguera M, Menéndez R, Molina J, Olaechea P, et al. Guía multidisciplinar para la valoración pronóstica, diagnóstico y tratamiento de la neumonía adquirida en la comunidad. Med Clin (Barc). 2013;140, e1–223.19.
- Julián-Jiménez A, Parejo Miguez R, Cuenca Boy R, Palomo de los Reyes MJ, Laín Terés N, Lozano Ancín A. Intervenciones para mejorar el manejo de la neumonía adquirida en la comunidad desde el servicio de urgencias. Emergencias. 2013;25:379–92.

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## Bronchioloalveolar Carcinoma: Time for a New Term<sup>☆</sup>

### Carcinoma broncoalveolar: un término a actualizar

To the Editor:

In the July issue of *Archivos de Bronconeumología*, Dr. Paraschiv and partners published a case in the Letters to the Editor section.<sup>1</sup> These authors describe a case of a male, 35-year smoker with a 35 pack-year history, consulting with symptoms of fatigue, cough and chest pain of 2-week duration. Chest X-ray revealed airspace involvement in the form of patchy consolidation with air bronchogram that was confirmed on a computed tomography (CT) scan

of the chest. The initial working diagnosis was an infectious process, although the lack of response to antibiotic therapy led to the clinical suspicion of malignancy. The patient died and definitive diagnosis of bronchioloalveolar carcinoma was established at necropsy. Although the unusual nature of this clinical case makes it interesting, we consider the final diagnosis of bronchioloalveolar carcinoma unclear.

The term “bronchioloalveolar carcinoma” has been used traditionally to describe lung adenocarcinomas presenting lepidic growth in the pathological specimen. Lepidic growth is the proliferation of neoplastic cells that line the surfaces of the alveolar walls, preserving lung architecture. The radiologic correlation of this type of tumor is usually the finding of ground-glass opacities or affected alveolar airspace areas that may be associated with consolidated and/or air bronchogram areas. From the clinical point of view, this type of tumor includes an amalgam of entities with completely different treatments and prognosis, ranging from

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