



## Letters to the Editor

**Non-Invasive Mechanical Ventilation in Elderly Patients: Moving Towards a New Strategy for Hospital Organization?\*****Ventilación mecánica no invasiva en pacientes de edad avanzada: ¿hacia una nueva estrategia de organización hospitalaria?**

To the Editor,

We read with great interest the article by Segrelles Calvo G et al., which provided an important assessment of the effectiveness of non-invasive mechanical ventilation (NIMV) in elderly patients.<sup>1</sup> The study demonstrates that some of the limiting factors of such effectiveness are the comorbidity and greater tendency to readmit elderly patients over time, influencing decision-making and prognosis of NIMV. The success of applying NIMV in the Respiratory Monitoring Unit (RMU) in elderly patients highlights the need to promote the creation and consolidation of these specific healthcare areas for elderly patients who require NIMV outside the Intensive Care Unit (ICU). We believe that there are relevant issues in this paper:

1) With respect to the age factor, the evidence available in the literature on the benefits of NIMV shows that age does not imply a poorer response. In the study by Scarpazza et al.,<sup>2</sup> which mainly included patients with Chronic Obstructive Pulmonary Disease (COPD) in acute respiratory failure (ARF), 54 patients of a cohort of 62 patients aged over 75 years responded to NIMV; thus the NIMV failure rate (need for orotracheal intubation (OTI) or mortality) was 12.9% of patients and the survival one year after discharge was 70%. In the study by Nava et al.,<sup>3</sup> 41 patients aged over 75 years were randomised to receive NIMV; 38 patients responded successfully and three (i.e. 7.3%) required OTI, one of whom died. In the series by Segrelles Calvo et al.<sup>1</sup> fewer than 3.5% of patients required transfer to ICU and OTI. In this series, the mortality in the group over 75 years on admission was 21.4%, slightly higher than that found in previous studies.<sup>2,3</sup> The do-not-intubate order could have influenced their results. The article states that 65% of patients were considered as do-not-intubate. It would be interesting to know more precisely how the order was established, and if patients were informed in earlier stages or after the first hospital admission. A higher frequency of heart failure as a cause of admission may also have influenced their results, in contrast to other recent studies which have mostly included patients with COPD or restrictive disorders. Heart failure was the major

cause of mortality in their study. It would be interesting to know the separate mortality rate in patients with exacerbation of COPD in their series, and to analyse whether there are other factors not considered that may account for this higher mortality.

- 2) Another aspect that we consider important is the health care organisation of NIMV in readmissions. The study by Segrelles Calvo et al. is one of the first to be carried out in a RMU in elderly patients, and it would be interesting to know whether the same protocol of care is also followed in readmissions in these same specific health care areas of the hospital. Aspects such as stabilisation of these patients in specific areas of the hospital and the low rate of transfer to ICU are relevant. In this respect, the authors do not explain whether patients who are readmitted are treated equally effectively in the RMU, or whether its use would be limited in subsequent admissions. It would be useful to know how the readmissions arose and where we draw the line with this approach.
- 3) With respect to the higher incidence of some complications in the cohort, such as heart or renal failure, the study does not suggest whether there were any limitations in the treatment of these complications.
- 4) It would be interesting to learn the rate of readmissions of patients discharged with home mechanical ventilation (HMV), comparing it with those who were discharged without NIMV. In the case of patients with chronic respiratory failure secondary to a restrictive disease who require HMV, some studies have been published showing that age does not influence the results in terms of 5-year survival, and that HMV reduces the number of readmissions and increases survival.<sup>4</sup> The implementation of long-term HMV after the first admission in patients in the series could reduce the tendency to readmission at six months.
- 5) Finally, it would be desirable to know the cost variables of NIMV in this population for the hospital system.<sup>5,6</sup> We believe that it would be interesting to have further evidence on the effectiveness of NIMV in elderly patients, especially in stages after the first hospital admission.

**References**

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\* Please cite this article as: Esquinas Rodríguez AM, Zamarro García C. Ventilación mecánica no invasiva en pacientes de edad avanzada: ¿hacia una nueva estrategia de organización hospitalaria? Arch Bronconeumol. 2013;49:275–6.

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Antonio M. Esquinas Rodríguez,<sup>a,\*</sup> Celia Zamarro García<sup>b,\*</sup>

<sup>a</sup> *Unidad de Cuidados Intensivos, Hospital Morales Meseguer, Murcia, Spain*

<sup>b</sup> *Servicio de Neumología, Hospital Rey Juan Carlos, Móstoles, Madrid, Spain*

\* Corresponding author.

E-mail addresses: [antmesquinas@gmail.com](mailto:antmesquinas@gmail.com)

(A.M. Esquinas Rodríguez), [celiazg1@hotmail.com](mailto:celiazg1@hotmail.com)

(C. Zamarro García).

## Pneumocytoma (Formerly Known as Sclerosing Hemangioma of the Lung): A Rare Cause of Chest Pain<sup>☆</sup>

### *Neumocitoma (antes denominado hemangioma esclerosante pulmonar), una rara causa de dolor torácico*

To the Editor,

The patient was a 41-year-old Chinese female, who after a dry cough presented with acute onset of left chest pain<sup>1</sup> and dyspnea on exertion, for which she attended the emergency department. A chest X-ray was performed, revealing the presence of a left infrahilar lung mass (Fig. 1). Positron emission tomography-computed tomography (PET-CT) scanning showed a 59 mm × 42 mm × 50 mm infrahilar mass (Fig. 2) and seven pulmonary nodules measuring between 1 and 12 mm. Neither the mass nor the nodules had increased metabolic activity. Complete resection of the mass was

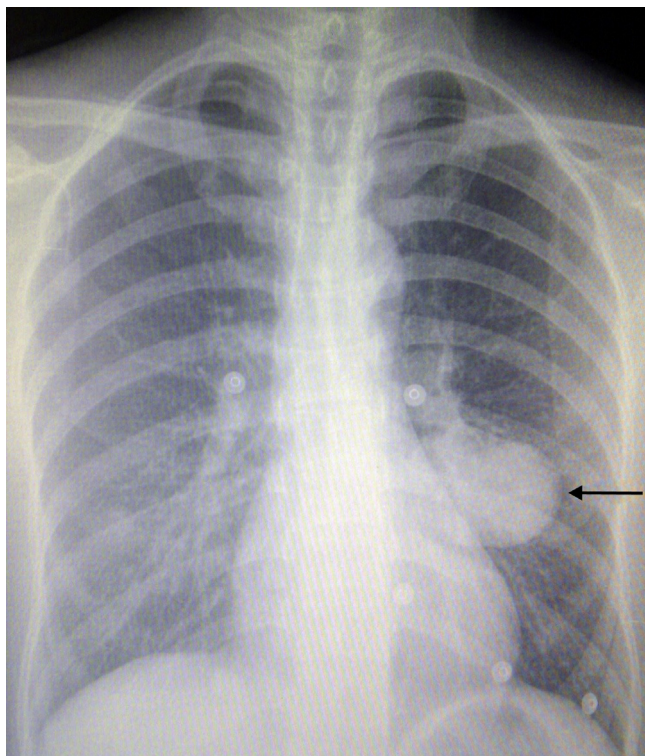


Figure 1. Pneumocytoma in the left hemithorax on the X-ray (arrow).

<sup>☆</sup> Please cite this article as: Ruiz de la Cuesta D, et al. Neumocitoma (antes denominado hemangioma esclerosante pulmonar), una rara causa de dolor torácico. *Arch Bronconeumol*. 2013;49:266-7.

then carried out by pneumotomy. As an isolated complication, the patient presented hemothorax in the post-operative period and required surgery. She subsequently progressed satisfactorily and was discharged home 72 h after the first operation. Histology confirmed pneumocytoma with a maximum diameter of 65 mm, of mixed pattern, predominantly solid with pseudopapillary areas, and absence of atypia, mitosis or necrosis.<sup>2</sup> Two surgeries were required to resect all the pneumocytomas, since she presented, in addition to those described, a further seven smaller pneumocytomas measuring between 1 and 12 mm, distributed in the left lower lobe, left upper lobe and right lower lobe.

Pneumocytoma, formerly known as sclerosing hemangioma of the lung, is a benign lung neoplasm, first described in 1956 by Liebow and Hubbel.<sup>3</sup> Owing to discussions on its histogenesis, it has received several names throughout its history, among them sclerosing hemangioma of the lung,<sup>3</sup> benign pulmonary histiocytoma and xanthomatous pseudotumour.<sup>2,4</sup> Today, ultrastructural study and immunohistochemical techniques suggest that this is an epithelial tumor with differentiation to type II pneumocytes, hence the name pneumocytoma. The first to coin the term "pneumocytoma" were Tanaka et al.<sup>6</sup> in 1986.

Pneumocytoma can present four different histological patterns: papillary, solid, sclerotic and hemorrhagic.<sup>5</sup> This complex histology raises the differential diagnosis with bronchoalveolar adenocarcinoma, carcinoid tumor of the lung, papillary adenoma, angiosarcoma and mesothelioma<sup>4,5</sup>; some of these are pathologies with a poor prognosis that require radical treatment, so correct histological diagnosis is essential, as surgical resection is curative.

Pneumocytoma is a benign tumor with low prevalence that is observed predominantly in Asian women. The mean age of onset is 46 years. The most common presenting form is as an asymptomatic solitary pulmonary nodule.<sup>2,4,5</sup> It can reach up to 7 cm in

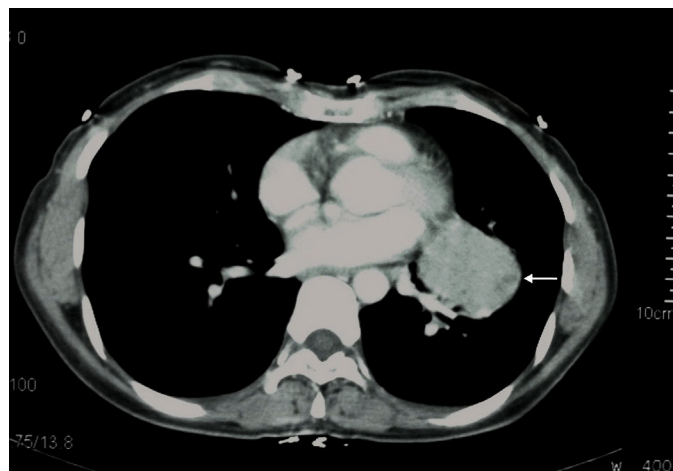


Figure 2. Left infrahilar location on the chest CT scan (arrow).