



Letters to the Editor

Indications for Positron Emission Tomography and Bone Gammagraphy in Staging Lung Cancer[☆]**Indicaciones de la tomografía por emisión de positrones y la gammagrafía ósea en la estadificación del cáncer de pulmón**

Dear Editor:

We have read with interest the SEPAR guidelines referring to lung cancer staging,¹ a document that we believe is necessary due to the need to rationalize the growing complexity of lung cancer diagnosis and treatment. Initiatives like this are extremely important for the efficient management of resources and for determining the best possible therapies for patients depending on prognostic factors, tumor stage and molecular profile.

With the intention of participating in the scientific debate that this document has initiated, we believe it is important to highlight two instances in which the published evidence does not seem to support the conclusions of the authors of the guidelines. In the first place, the use of PET/CT is recommended for the staging of patients with non-small-cell lung cancer (NSCLC) in clinical stages IA–IIIA, excluding patients with stage IIIB; however, the *ACCP Evidence-Based Clinical Practice Guidelines*,² cited by the guidelines, indicate PET or PET/CT for the staging of patients with clinical stage IA–IIIB who will receive curative treatment. Likewise, the panel of experts of the International Atomic Energy Authority (IAEA)³ does not define any patient subgroup in which PET should not be used for planning radiotherapy in NSCLC. In a study of the usefulness of PET/CT for the pre-operative staging of NSCLC, Fisher et al.⁴ included patients with stage IIIB (33% of the cases studied) and the results of the assay do not conclude that this patient group does not benefit from the test. Finally, in a recent French multi-center study, Pommier et al.⁵ have demonstrated the utility of PET–CT for planning the treatment with radical radiotherapy, including patients in stage IIIB.

Second, with regard to the role that SEPAR¹ attributes to PET and bone scintigraphy (BS) in the diagnosis of bone metastasis, it should be pointed out that the cited guidelines of the ACCP recommend the use of the former technique over the latter² based on two studies

that demonstrated the greater preciseness of PET over BS. A recent meta-analysis⁶ of 17 publications has concluded that PET or PET–CT are better imaging methods for the diagnosis of bone metastases in patients with lung cancer than BS or magnetic resonance imaging. Given the fact that the patients may also suffer a hidden visceral disease that is detectable with PET, it seems more logical to indicate this test, if available, as a first choice in studying distant metastasis staging.

In conclusion, we suggest that, based on the evidence presented, the recommendations of the SEPAR guidelines for lung cancer staging should be revised with regard to the use of PET or PET–CT in the non-invasive investigation of the mediastinum in clinical stage IIIB as well as the indication of BS instead of PET in screening for bone metastases.

References

1. Sánchez de Cos Escuin J, Hernández Hernández J, Jiménez López MF, Padrones Sánchez S, Rosell Gratacós A, Rami Porta R. Normativa SEPAR sobre estadificación del cáncer de pulmón. Arch Bronconeumol. 2011;47:454–65.
2. Silvestri GA, Gould MK, Margolis ML, Tanoue LT, McCrory D, Toloza E, et al. Non invasive staging of non-small cell lung cancer. Chest. 2007;132:178S–201S.
3. MacManus M, Nestle U, Rosenzweig KE, Carrio I, Messa C, Belohlavek O, et al. Use of PET and PET/CT for radiation therapy planning: IAEA expert report 2006–2007. Radiother Oncol. 2009;91:85–94.
4. Fisher B, Lassen U, Mortensen J, Larsen S, Loft A, Bertelsen A, et al. Preoperative staging of lung cancer with combined PET–CT. N Engl J Med. 2009;361:32–9.
5. Pommier P, Touboul E, Chabaud S, Dussart S, Le Pechoux C, Giammarile F, et al. Impact of 18F-FDG PET on treatment strategy and 3D radiotherapy planning in non-small cell lung cancer: a prospective multicenter study. AJR. 2010;195:350–5.
6. Qu X, Huang X, Yan W, Wu L, Dai K. A meta-analysis of 18FDG-PET-CT, 18FDG-PET, MRI and bone scintigraphy for diagnosis of bone metastases in patients with lung cancer. Eur J Radiol. in press, 2011. Available from: <http://dx.doi.org/10.1016/j.ejrad.2011.01.126>.

Joaquín Cabrera-Rodríguez,^{a,*} Lucía García-Bernardo,^b
Juan Quirós-Rivero^a

^a Servicio de Oncología Radioterápica, Hospital Universitario Infanta Cristina, Badajoz, Spain

^b Servicio de Medicina Nuclear, Hospital Universitario Infanta Cristina, Badajoz, Spain

* Corresponding author.

E-mail address: joaquin.cabrera@ses.juntaextremadura.net
(J. Cabrera-Rodríguez).

doi:10.1016/j.arbr.2012.05.006

[☆] Please cite this article as: Cabrera-Rodríguez J, et al. Indicaciones de la tomografía por emisión de positrones y la gammagrafía ósea en la estadificación del cáncer de pulmón. Arch Bronconeumol. 2012; 48:300.