

## Letters to the Editor

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#### Synchronous bilateral lung carcinoid tumors: a rare entity?

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Received 6 March 2003; accepted 18 April 2003

**Keywords:** Pulmonary carcinoid tumor; Surgery; Positron emission tomography; Neuroendocrine tumor

We read with interest the article of Dr. Beshay and colleagues [1], concerning a case of bilateral typical carcinoid tumors. We agree that bilateral lesions are rare entities but, probably, not exceptional. We had a similar experience in a patient operated on in 1999. A 60-year-old man was admitted after the discovery of two bilateral well-defined lung nodules. After a careful staging to exclude extrathoracic deposits, two staged (1 month) thoracotomies were planned and a lingulectomy and a right upper lobectomy with radical lymph nodes dissection (RLND) were done, respectively. According to the last WHO classification, the left-sided tumor was an atypical carcinoid tumor (pT1, pN1) with solid and spindle cell features and a proliferative activity (Ki-67) of 16%, whereas the contralateral one was a typical carcinoid tumor (pT1, pN0) with solid to trabecular histological appearance and a Ki-67 of 3.5%. The immunohistochemical characterization for neuroendocrine differentiation markers and several respiratory tract-related hormones revealed no remarkable differences between the two lesions. All these morphological considerations support the view that the two tumors are best interpretable as being independent of each other in the form of synchronous, bilateral neoplasms. In fact, although the atypical lesion showed focal vascular invasion and peribronchial lymph node metastases, it is unlikely that a typical carcinoid may originate from an atypical lesion inasmuch as tumors usually progress in their malignancy.

Both postoperative courses were uneventful and the patient is alive and disease-free 3 years after the last operation.

From 1996 until now, we have operated on 63 patients with carcinoid tumors, and the present case represents 1.6% of the overall series.

Two aspects of the paper deserve attention: the lack of consensus about the type of lung resection and the use of positron emission tomography (PET) scan in these tumors.

Even though there is no consensus about the type of pulmonary resection, we believe that an anatomical resection associated with RLND should be used in all patients. All patients in our series underwent anatomical resection with RLND and 27% of cases showed lymph node metastases (14% N1 and 13% N2). These percentages increase in atypical form (50%, 11/22: N1 22.7%, N2 27.3%) with respect to the typical one (14.6%, 4/41: N1 9.7%, N2 4.9%). Taking into account that surgery is the only therapeutic option to cure a patient with lung carcinoid, anatomical resection associated with RLND should be considered the gold standard treatment, being wedge or segmental resection without lymph node dissection at risk of developing recurrence.

It has been suggested that PET scanning could be less effective in low-grade malignancies, and its use could be useless in carcinoid tumors. In the last 2 years 25 consecutive patients of our series underwent PET scan before operation. PET was positive in 84% of these patients (93% in atypical vs. 73% in typical carcinoid tumors).

In conclusion, we believe that pulmonary carcinoid tumors constitute low-grade malignant disease needing anatomical resection and RLND for their cure, and PET scan could be useful in the preoperative staging.

### References

- [1] Beshay M, Roth T, Stein R, Schmid RA. Synchronous bilateral typical pulmonary carcinoid tumors. *Eur J Cardiothorac Surg* 2003;23:251–3.

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