Interesting images

An 18-year delay in the clinical presentation of bronchial carcinoid

Retraso de 18 años en la presentación clínica de carciñoide bronquial

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A 74-year-old Caucasian woman referred to our department for acute onset of dry cough and mild chest pain. Her medical history was unremarkable with the exception of right pulmonary tuberculosis diagnosed and treated in 1996. A computed tomography (CT) scan disclosed the enlargement (26 mm vs 21 mm in the major axis) of a round-shaped solid nodule localized near to the apical bronchus of the right lower lobe (RLL): in particular - the lesion was already diagnosed 18 years before as intrapulmonary lymph-node (Fig. 1A and B), thus a radiological follow-up was not performed due to its benign features. A whole body \(^{18}\)FDG positron emission tomography (PET-CT) scan was then executed: PET-CT images evidenced a hyper-metabolism (SUV max 4.7) of the lung nodule; no sign of extra-thoracic uptakes was reported (Fig. 1C). After a multidisciplinary meeting, the patient underwent surgery. An apical RLL segmentectomy was performed and intra-operative pathologic analysis was suggestive for lung cancer (Fig. 2A), so an uneventful right lower lobectomy plus systematic lymphadenectomy was executed. Final pathology was consistent with typical carcinoid classified as pT1bN0M0 (stage IA, Fig. 2B). Six months after surgery the patient was free from recurrence.

So far, delayed presentation/diagnosis of lung cancers has been seldom analyzed in literature. Some authors suggested that lung tumours growth generally takes 10–15 years from the appearance of the first cancer-cell to the detection of lung cancer by conventional imaging\(^1\): considering that tumour growth is biologically slow, this could indicate that the diagnosis is unlikely changed by delayed diagnosis. In this setting, Salomaa et al.\(^1\) reported that long specialist treatment delays are not correlated with worse prognosis in patients with advanced disease, while the delay time may be more critical in those cases with limited disease.

In our case, the “lucky” and exceptional (18 years) diagnosis of bronchial typical carcinoid was delayed because: (1) the lung nodule was diagnosed as intrapulmonary lymph-node by conventional imaging only; (2) the symptoms were not disease-specific: in fact, bronchial carcinoids have been sometimes associated to

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Figure 1. (A) CT scan performed in 1996: the image evidences a round-shaped solid nodule (measuring 21 mm in the major axis) localized near to the apical bronchus of the right lower lobe. The clinical diagnosis was consistent with intrapulmonary lymph-node associated to tuberculosis. (B) CT scan performed 18 years after: CT slice demonstrates the enlargement of the lung nodule (26 mm in the major axis). (C) Whole body PET/CT performed 1 h after the administration of 296 MBq of \(^{18}\)FDG (axial, coronal and sagittal slices): the images evidenced an increased uptake of a round-shaped solid nodule of the right lower lobe (SUV max 4.7). No sign of mediastinal or extra-thoracic disease was disclosed.
delayed diagnosis due to masquerading symptoms related to other thoracic diseases (cough, chest pain, asthma, etc.).

We assume that the tumour has already arisen in 1996 due to the usual indolent clinical course of such neoplasms. In addition, while oncocytic features were not observed, our case further demonstrates that typical carcinoids have been sometimes associated to higher uptake at PET-CT scan, thus confirming the role of nuclear imaging in detecting also slow-growth tumours.2,3

In conclusion, although bronchial carcinoids have an indolent clinical course, extremely delayed diagnosis or presentation is very uncommon. In those patients with lung nodule and uncertain nature for long time, the PET-CT may be useful to determine whether the patient would need a radiological surveillance or surgical therapy.

References