Giant Alveolar Adenoma Causing Severe Dyspnoea

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A 38-year-old Caucasian woman was admitted to hospital complaining of recent-onset acute night dyspnoea. A chest radiograph disclosed a bulky cystic lesion in the middle-lower field of the left lung (Figure 1), and a computed tomography scan confirmed the presence of a 91 × 50 × 98-mm multiseptated giant cystic mass arising in the lingula and compressing the adjacent pulmonary parenchyma (Figure 2).

The patient's clinical history was unremarkable apart from autoimmune hyperthyroidism under medical treatment for 4 years. The patient underwent left muscle sparing thoracotomy with resection of the entire unopened lesion and no lung tissue sacrifice.

Grossly, the tumor consisted of a multiseptated giant cystic mass with gaseous content and scant liquid material (Figure 3). Histologically, it featured a typical alveolar adenoma with dual cell composition of type II pneumocytes and elongated septal mesenchymal cells, but with unusual formation of giant cystic spaces (Figures 4*A*, *B*). The immunohistochemical profile—positivity for thyroid transcription factor-1 (Figure 4*C*), negativity for myogenin, surfactant and cytokeratins in pneumocytes, and negativity for desmin in mesenchymal cells—was consistent with alveolar adenoma. The proliferative activity as assessed by Ki-67 immunostaining was unremarkable in both cell types (Figure 4*D*).

The nonrandom occurrence of specific genetic alterations in alveolar adenoma in relation to its neoplastic nature, albeit benign, inasmuch as recurrence has never been recorded.[1–4]

Most patients are middle aged to elderly and asymptomatic, with a slight female predominance. Most tumors are found by chance, whereas the occurrence of severe tumor-related symptoms, as described in our case, is exceptional. Conservative surgery is the best treatment and no further therapy is required.[2]

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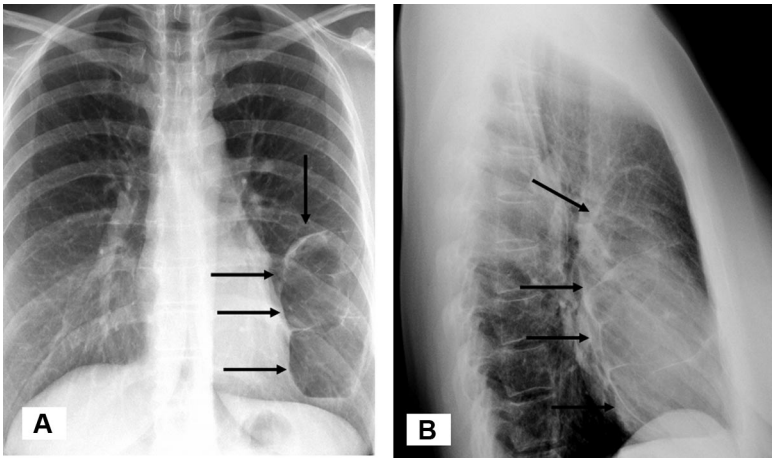

FIGURE 1. Posteroanterior (A) and lateral (B) x-ray views show a large cystic lesion in the middle-lower field of the left lung, with multiple intralesional septa and well-defined peripheral margins, displacing the lower lobe and the upper part of the upper lobe.

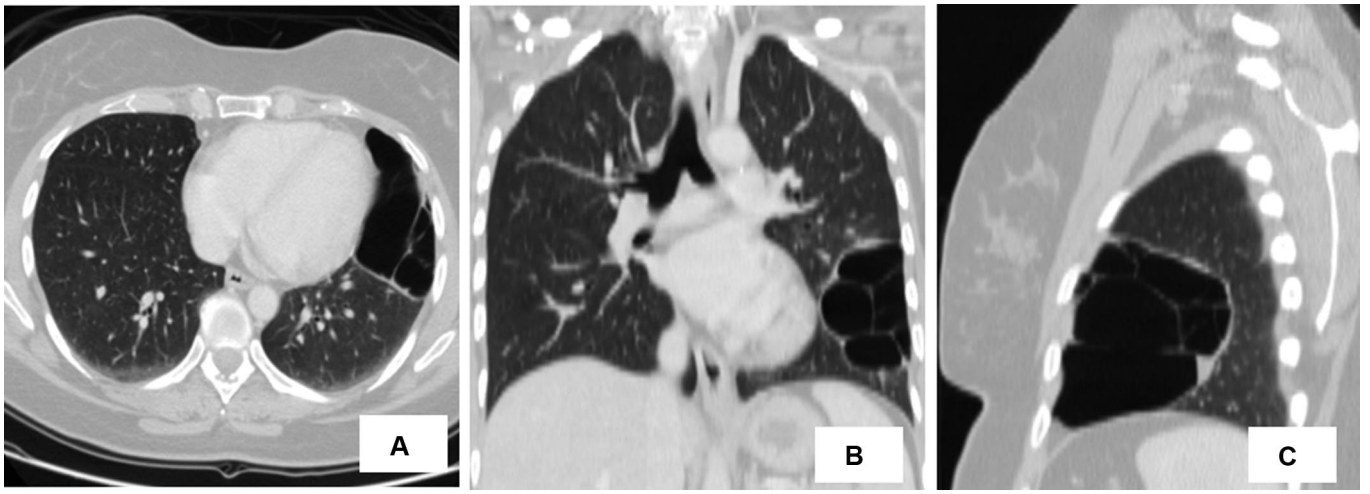

FIGURE 2. Axial computed tomography (A) image and postprocessed reconstructed coronal (B) and sagittal (C) views of the lungs confirmed the presence of a 98-mm multiseptated cystic lesion arising from the lingula, characterized by well-defined walls and thin intralesional septa. Other findings were unremarkable.

FIGURE 3. Gross pathology of the tumor showing a multiseptated giant cystic mass with thin, translucent walls.

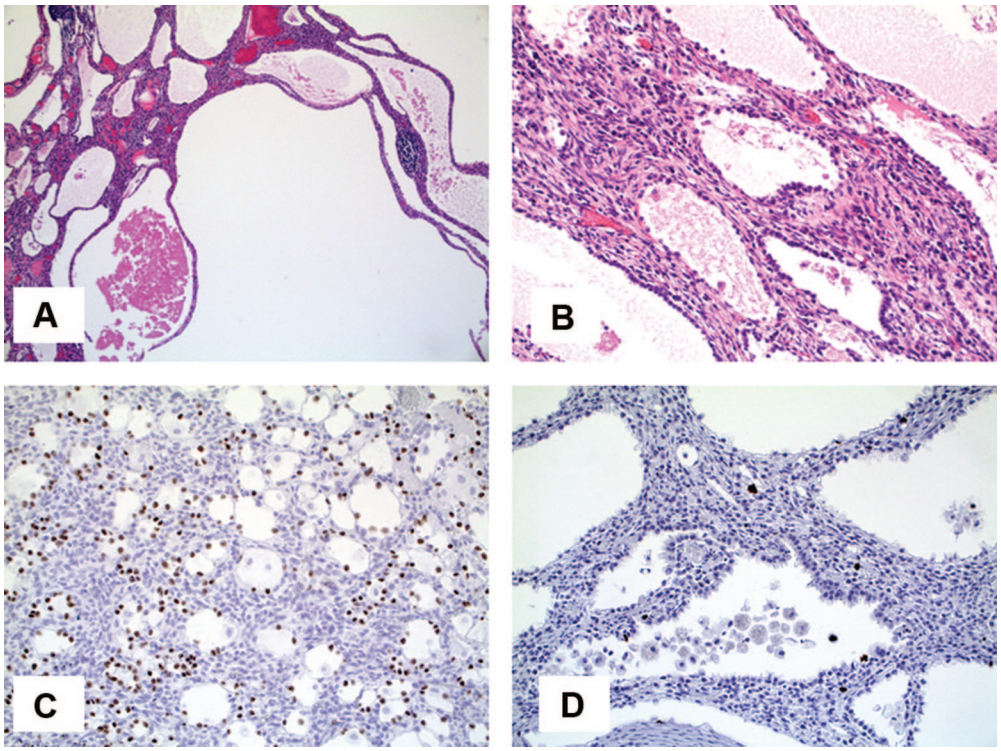

FIGURE 4. Giant alveolar adenoma with large ectatic dilations (*A*), but the typical dual cell composition of type II pneumocytes and elongated septal mesenchymal cells (*B*), the former being positive for thyroid transcription factor-1 (*C*). The proliferative activity as assessed by Ki-67 immunostaining was negligible in both cell components (*D*).