Small Cell Lung Cancer with Bizarre Radiographic Findings

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A 66-year-old woman with a 36-pack-year smoking history presented to our hospital with dyspnea and a performance status of 2. Chest radiography (Picture 1A) and computed tomography (Picture 1B) revealed thickening of the bronchovascular bundles in the right lung. [¹⁸F]-fluorodeoxyglucose positron emission tomography showed a high uptake in the lesion sites (Picture 1C and D). A bronchoscopic examination showed marked stenosis in the right upper bronchus; however, the bronchial epithelium was retained (Picture 2A). Small-cell lung cancer (SCLC) was confirmed by a histopathological examination of the transbronchial biopsy specimen (Picture 2B). After treatment with carboplatin and etoposide, the patient’s symptoms and radiographic abnormalities improved.

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Early-phase SCLC tends to progress concurrently in the bronchial submucosa and along the bronchovascular bundles, retaining the bronchial epithelia (1). Thus, pulmonary atelectasis arises less frequently in patients with SCLC (2). This advanced case retained the characteristics of early-phase SCLC, leading to the bizarre radiographic findings. The pathological mechanism found in this case has been described in Japanese textbooks; the first textbook to describe this mechanism was published 40 years before this report.

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References

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