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CLINICAL IMAGE

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A case of Rasmussen's aneurysm caused by pulmonary nontuberculous mycobacterium

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Key message

Rasmussen's aneurysm was originally described as a rare cause of hemoptysis in tuberculosis. Dilatation of the pulmonary artery wall is caused by tuberculosis inflammation. Recently, the incidence of non-tuberculous mycobacterial (NTM) disease has increased; it now exceeds that of tuberculosis. We report a Rasmussen's aneurysm due to NTM.

KEYWORDS
nontuberculous mycobacterium, Rasmussen's aneurysm

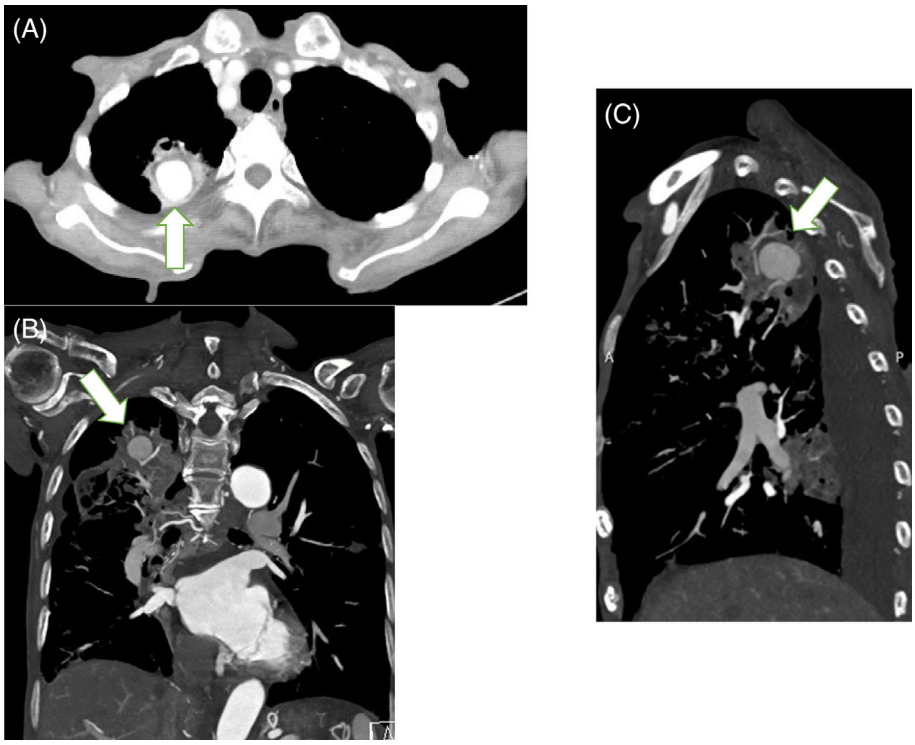

FIGURE 1 (A) Contrast-enhanced CT on admission showed pulmonary pseudoaneurysm in the right upper lobe (arrow), (B) Coronal CT section, and (C) Sagittal section

CLINICAL IMAGE

Rasmussen's aneurysm is a rare complication of pulmonary tuberculosis which causes hemoptysis resulted from rupture of a dilated vessel into a preexisting cavity.[1] Recently, the incidence of non-tuberculous mycobacterial (NTM) disease has markedly increased, such that it now exceeds that of tuberculosis. Chiu et al. reported a case of Rasmussen's aneurysm due to NTM disease.[2] We herein report a 90-year-old woman admitted to our hospital because of hemoptysis and dyspnea. Ten months before admission, the patient was diagnosed with NTM based on a positive sputum PCR test for *Mycobacterium intracellulare*. Because of her advanced age, antimicrobial treatment was not initiated. On admission, contrast-enhanced computed tomography (CT) showed a more advanced NTM lesion compared with 10 months prior, and a pulmonary pseudoaneurysm with a diameter of 2.2 cm in the right upper lobe had appeared (Figure 1). The patient underwent bronchial artery embolization with a gelatin sponge on the day of admission and coil embolization was performed for the pulmonary pseudoaneurysm on the 4th hospital day (Figure 2). The patient's post-embolization course was uneventful and her hemoptysis disappeared. Repeated contrast-enhanced CT after coil embolization showed no blood flow (Figure 3C) in the previously enhanced opacity (Figure 3B).

FIGURE 2 Pulmonary angiography showed blood flow (arrow) in the pseudoaneurysm

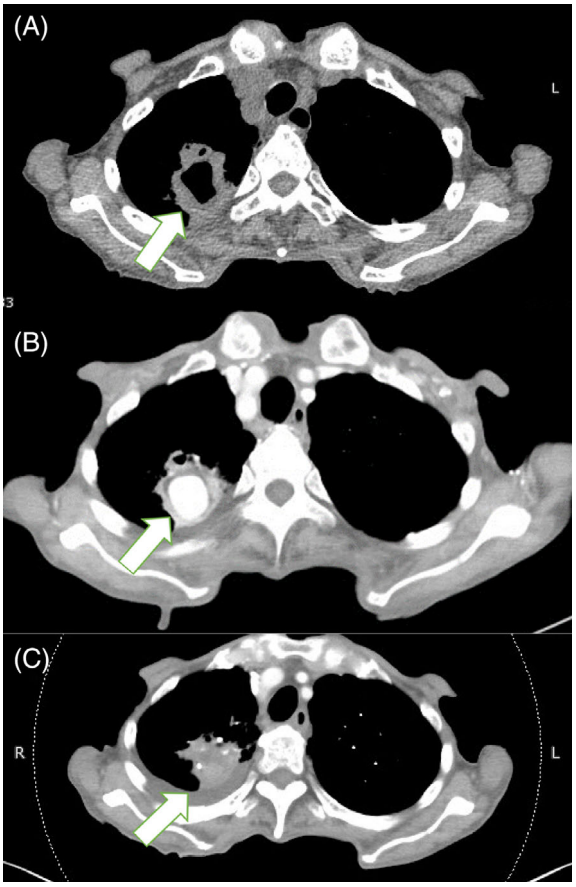

FIGURE 3 (A) Plain CT at another hospital 6 days before admission showed a large cavitary lesion in the right upper lobe (arrow), (B) Contrast-enhanced CT on admission showed pulmonary pseudoaneurysm (arrow), and (C) Contrast-enhanced CT after coil embolization showed no blood flow in the aneurysm (arrow)

AUTHOR CONTRIBUTIONS

Maya Plantilla, Shohei Nozu, Norihiko Nakanishi, and Yoshihiro Ishimaru performed medical treatment.

CONFLICT OF INTEREST

None declared.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

ETHICS STATEMENT

The authors declare that appropriate written informed consent was obtained for the publication of this manuscript and the accompanying images.

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