

Fatal middle cerebral artery aneurysm from *Mycobacterium tuberculosis* infection

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Key Clinical Message

Aneurysms caused by *Mycobacterium tuberculosis* infection are a rare disease. For such patients, cerebral artery aneurysm is a rare but evenly fatal lesion that is not diagnosed in time; combined antituberculosis treatment and surgical intervention provide the best chance of cure.

KEYWORDS

antituberculosis, artery aneurysm, *Mycobacterium tuberculosis* infection, surgical intervention

A 37-year-old woman presented to intensive care unit (ICU) with a headache, nausea and convulsions for 8 hours. One month ago, the diagnosis was confirmed as pulmonary tuberculosis, and there was no abnormality in the head CT at that time. Regular antituberculosis treatment was given. But the patient gradually developed headache, nausea, and worsened. Analysis of the cerebrospinal fluid (CSF) showed lymphocyte-dominant pleocytosis, decreased of glucose and chloride, a pressure of more than 330 mm H₂O. Emergency chest CT (Figure 1) and cranial CT (Figures 2 and 3) were performed. For the sake of patient safety, we gave an emergency interventional treatment and continued to give regular

antituberculosis treatment. After 2 weeks of treatment, the symptoms of headache and nausea disappeared. So far, she is still in follow-up.

Aneurysms caused by *Mycobacterium tuberculosis* infection are a rare disease. It has been reported that the ascending aorta, abdominal aorta, and thoracic aorta can be involved,^{1,2} but the middle cerebral artery aneurysms caused by tuberculosis has not been reported. For such patients, cerebral artery aneurysm is a rare but evenly fatal lesion that is not diagnosed in time; combined antituberculosis treatment and surgical intervention provide the best chance of cure.

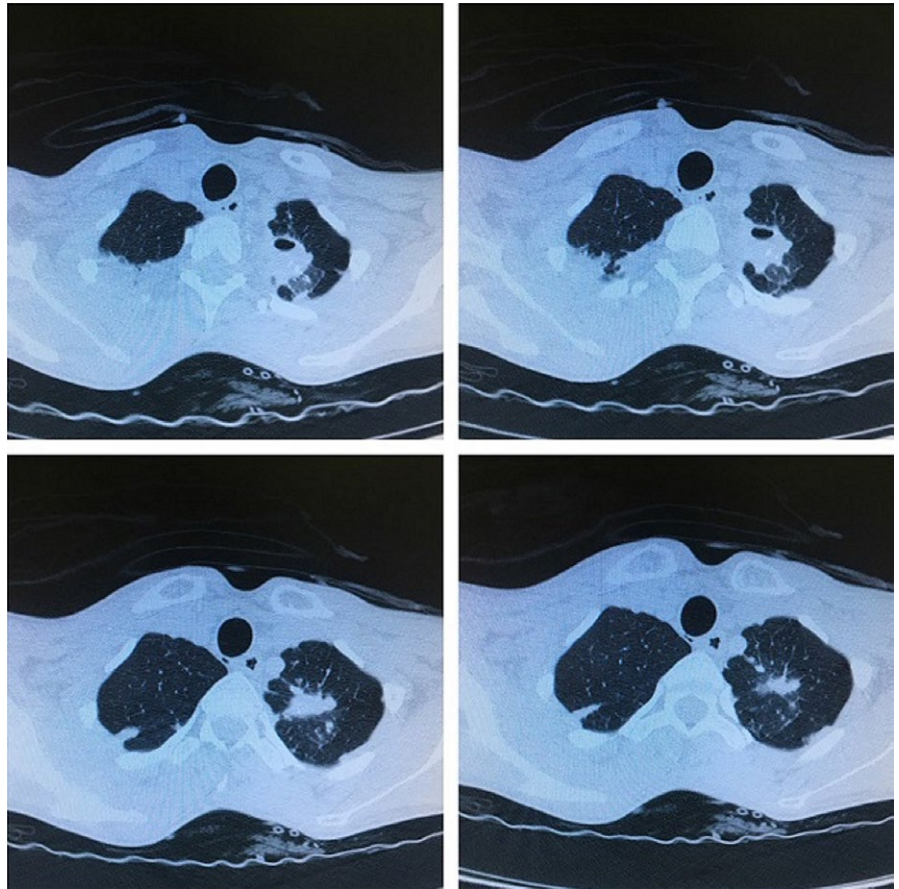


FIGURE 1 Chest CT showed consolidation, infiltration, cavity, calcification and satellite foci in the upper lungs

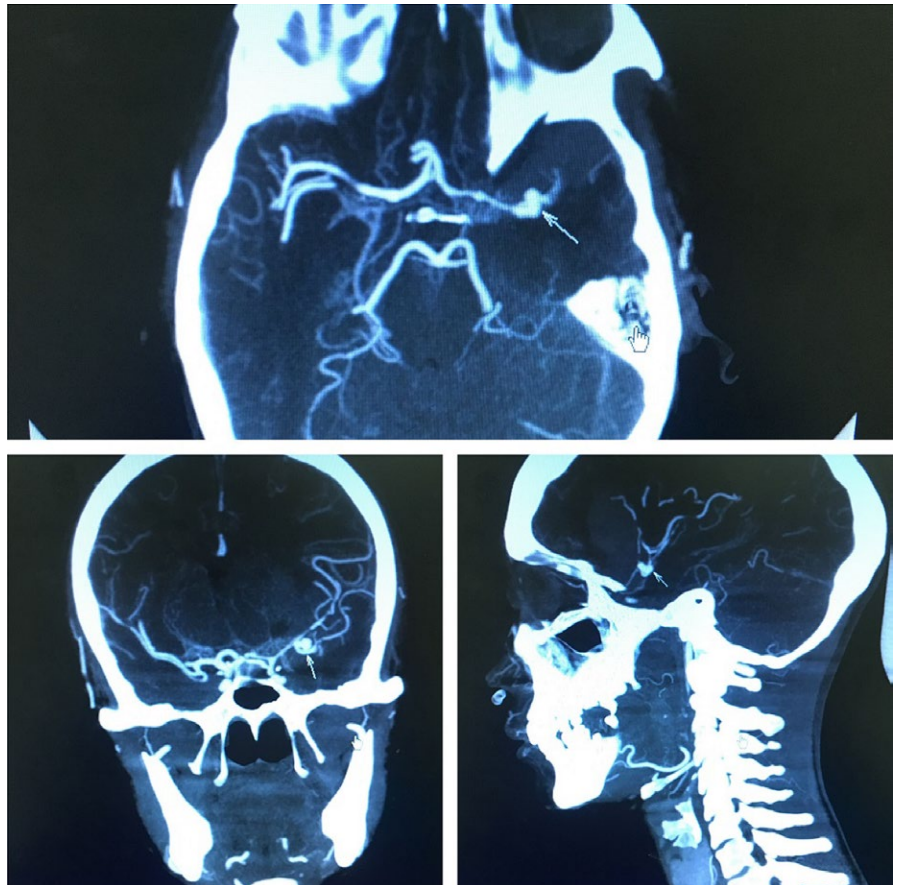


FIGURE 2 Head CT showed left middle cerebral artery aneurysm

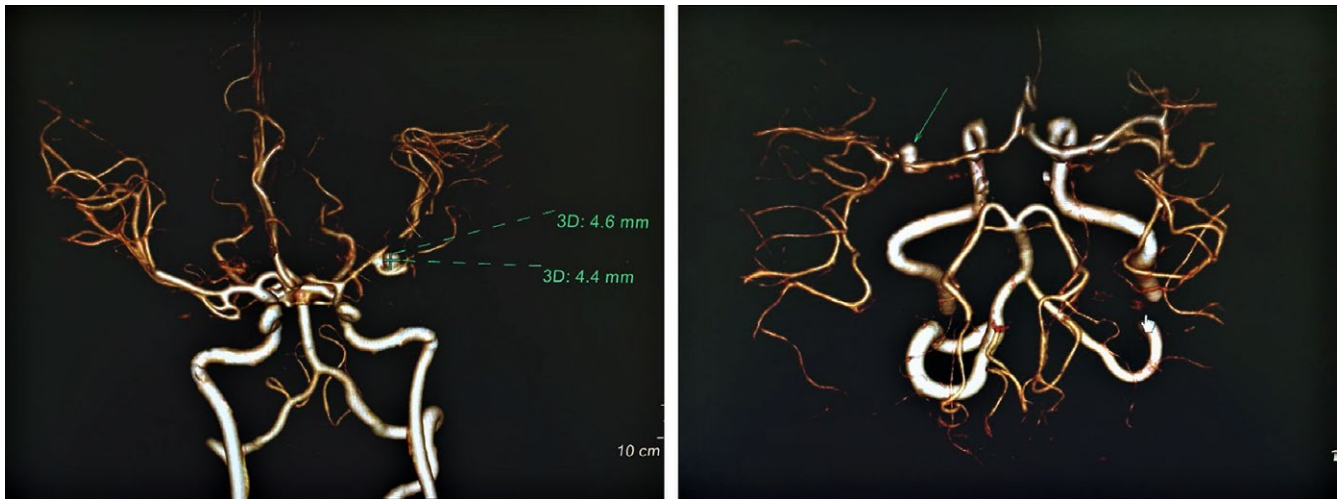


FIGURE 3 The three dimensional (3D) reconstruction with CT angiography showed artery aneurysm with a size of 4.4*4.6 mm

CONFLICT OF INTEREST

None declared.

AUTHOR CONTRIBUTION

Shan lin and Yan Wang wrote the draft of this article. Wei Guan revised this article. Shan Lin and Yan Wang contributed equally to this work. Written consent to publication was obtained.

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