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Images in Infectious Diseases

Multiple *Streptococcus sanguinis* brain abscesses misdiagnosed as cerebral manifestation of tuberculosis

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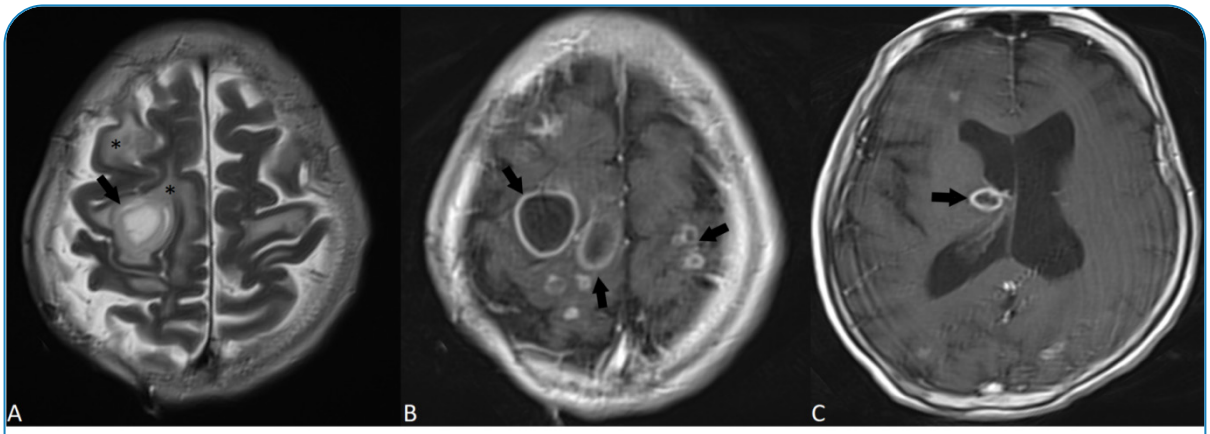

FIGURE 1: (A) Axial T2-weighted images showing hyperintense lesion (arrow) with surrounding edema (asterisk) of right frontal lobe. **(B-C)** Axial post contrast T1-weighted images showing ring-enhancing lesions (arrows) of bilateral parietal and frontal lobes, and right thalamus.

A 68-year-old man with a known history of pulmonary tuberculosis (TB) was admitted to our hospital following sudden onset of left hemiplegia. Cranial magnetic resonance imaging (MRI) showed multiple hyperintense lesions on T2-weighted images with surrounding vasogenic edema (**Figure 1A**) and ring-enhancement following administration of an intravenous contrast agent (**Figure1 B-C**). MR spectroscopy revealed lipid and lactate peaks with low levels of n-acetyl aspartate, consistent with the inflammatory process. There were no abnormal findings, except the TB-induced left lung damage on thoracic computed tomography (**Figure 2**); infective endocarditis was not evident on transesophageal echocardiography. The patient was preliminarily diagnosed with TB abscess due to a history of pulmonary TB and was administered anti-tubercular treatment. As the cranial lesions progressed under TB treatment, surgical drainage was performed, and pus culture from the abscess showed *Streptococcus sanguinis*.

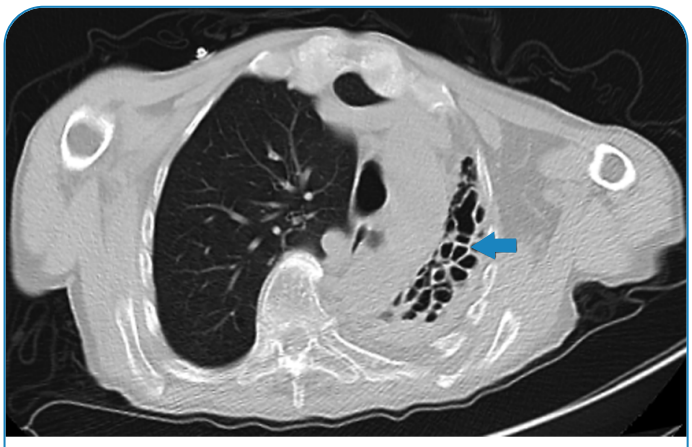

FIGURE 2: Thorax computed tomography showing unilateral tuberculous lung destruction **(arrow)**.

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S. sanguinis is a facultative anaerobic commensal bacterium found in the oral cavity. Central nervous system infectiondue to *S. sanguinis* has rarely been reported in the literature. Facilitating conditions included infective endocarditis, pulmonary arteriovenous fistulas, and history of craniotomy in previously reported cases[1-3]; however, neither foci of infection nor facilitating causes were found in the present case.

To our knowledge, this is the most severe case of brain abscess caused by *S. sanguinis*. Moreover, the diagnostic challenge posed by the patient's history of pulmonary TB is noteworthy. Awareness of this pathogen as a rare cause of brain abscess will help clinicians determine the accurate diagnosis.

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Not applicable.

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