

## Image Report

# Hypertrophic cranial pachymeningitis coinfection with tuberculosis and actinomycosis

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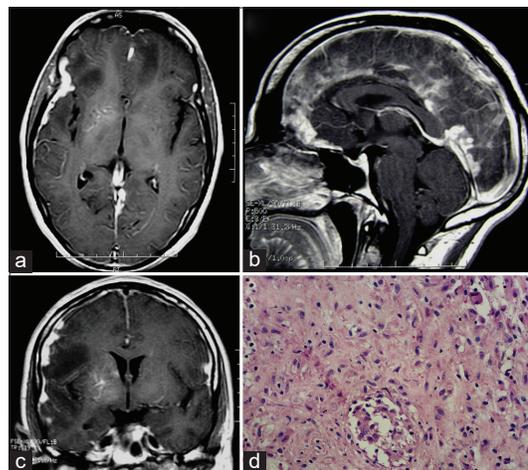
## ABSTRACT

This is a rare case report about hypertrophic cranial pachymeningitis coinfection with tuberculosis and actinomycosis in a 35-year-old male. The patient presented with progressive headache, paraesthesia, and blurred vision. Dural biopsy, histology, and cultures are imperative in pachymeningitis for establishing the diagnosis and guiding treatment.

**Keywords:** Actinomycosis, Hypertrophic cranial pachymeningitis, Intracranial infection, Pachymeningitis, Tuberculosis

## IMAGE REPORT

A 35-year-old male presented with progressive headache, paraesthesia, and blurred vision. The MRI showed diffuse meningeal enhancement with thickening, along with areas of brain edema [Figure 1a-c]. Despite this mild meningeal inflammatory syndrome, cultures were negative. Although there was an initial perceived response to steroids, the patient had a relapse. A dural biopsy revealed



**Figure 1:** Axial (a), sagittal (b), and coronal (c) cranial magnetic resonance imaging following gadolinium injection showing diffuse meningeal enhancement and thickening, along with areas of brain edema. Dural biopsy revealing epithelioid-giant cell granulomas with caseous necrosis (hematoxylin-eosin staining) (d).

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epithelioid-giant cell granulomas with caseous necrosis, and TB-PCR of tissue was positive [Figure 1d]. In addition, the anaerobic culture (requiring about 4 weeks) eventually grew *Actinomyces* species. The patient had a good response to oral ciprofloxacin and antituberculous medication. The conclusion was that dural biopsy, histology, and cultures are imperative in pachymeningitis for establishing the diagnosis and guiding treatment.

#### **Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent.

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Nil.

#### **Conflicts of interest**

There are no conflicts of interest.

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