



## Hypertrophic pachymeningitis: idiopathic or secondary?

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Dear Editor:

We read with great interest the recently published article entitled “Rapidly progressive fatal idiopathic hypertrophic pachymeningitis with brainstem involvement in a child” by Tsuchida and colleagues [1]. Authors described a 3-year-old girl who presented with headache, frequent vomiting, weakness, and weight loss with a preceding history of trivial trauma at 2 years of age. She was diagnosed to have idiopathic hypertrophic meningitis and had a fatal course. However, we want to add some points on the recently published article.

The child had recurrent episodes of headache since 2 years of age; however, it is nearly impossible for a 2-year-old child to subjectively complain about a headache. She had vomiting, weight loss, and progressive encephalopathy for the past 2 months and investigations showed cerebrospinal fluid (CSF) pleocytosis, elevated CSF proteins, communicating hydrocephalus, and basal meningeal enhancement. Her clinical symptoms and neuroimaging findings were compatible with central nervous system tuberculosis. The diagnosis of tuberculous meningitis (TBM) is challenging in children as they usually have paucibacillary disease and diagnostic criteria for TBM are not distinctly defined. PCR is the most rapid diagnostic technique used for the diagnosis of TBM and it has a sensitivity of 60–70% and higher specificity (97%) [2]. Gene Xpert also has similar sensitivity and specificity. Marais and colleagues [3] proposed a uniform case definition for TBM: definitive, probable, and possible TBM. According to this definition, this child had probable TBM which is defined as a diagnostic score of more than 9 points (in the absence of cranial imaging) or more than the 11 points (in the presence of cranial imaging) along with exclusion of alternative diagnosis. At least 2 points should include either from CSF or cranial

imaging criteria along with clinical criteria. This child had a diagnostic score of 14 (clinical criteria, 6; CSF criteria, 3; and imaging criteria, 5) in spite of not searching for other evidence of tuberculosis in the body.

The neuroimaging in the reported child showed progressive pachymeningeal thickening and nodularity with communicating hydrocephalus. A T1-weighted post-contrast axial section showed multiple enhancing lesions in the pons and mid brain, which are probably tuberculomas.

Hypertrophic pachymeningitis is an extremely rare condition in children and characterized by diffuse or localized pachymeningeal thickening. It may be idiopathic or secondary. The secondary causes are malignancies, trauma, shunt surgery, various rheumatological disorders, and inflammatory or infectious conditions including central nervous system tuberculosis, syphilis, or fungal infections [4, 5].

We feel that this child had hypertrophic pachymeningitis secondary to tuberculosis. More efforts to look for other evidences of tuberculosis (family history, Mantoux test, chest x-ray, family screening, gastric aspirate or broncho-alveolar lavage for acid-fast bacilli, and ultrasonography of the abdomen) and early initiation of antitubercular therapy with high-dose steroids could have altered the course of the disease.

### Compliance with ethical standards

**Conflict of interest** Nothing to declare.

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