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Langerhans cell hyperplasia manifesting as skull erosion in the CNS

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A 56-year-old woman was diagnosed with an eosinophilic granuloma after a head computed tomography scan. A magnetic resonance imaging scan of the skull revealed a mass of about 3 cm diameter, confirmed as a mixed heterogeneous signal between the left occipital bone and dura mater, which had eroded the skull and had not invaded the dura. The patient underwent excision of the skull lesion without any complications. Postoperative biopsy confirmed a diagnosis of Langerhans cell hyperplasia. The postoperative course was asymptomatic and normal, and there was no clinical or imaging recurrence after 2 years of follow up (Figures 1a and b).

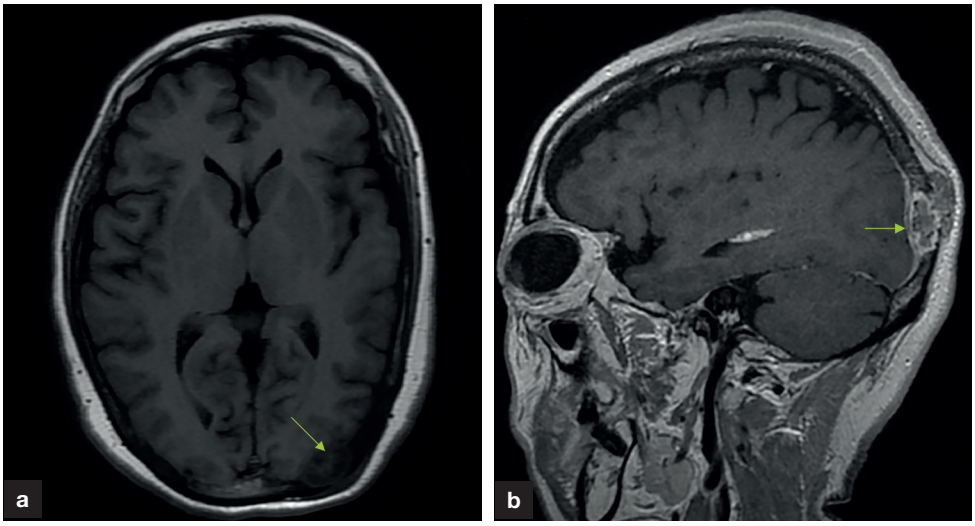

Figure 1. a. Axial fluid attenuation inverted recovery magnetic resonance imaging sequence shows a low-density heterogeneous signal between the left occipital bone and the dura mater. b. The sagittal T1-weighted magnetic resonance imaging sequence showed that a heterogeneous signal of equal density and high density was seen between the left occipital bone and the dura mater.

Langerhans cell hyperplasia is a rare disease characterised by clonal hyperplasia of Langerhans cells (Langerhans, 1868), which mainly occurs in infants and children, and is rare in adults (Chiong et al, 2013). Diagnosis is carried out by histopathological examination, and proliferation of tissue cells with positive staining of S100, CD1a and Birbeck particles is observed under an electron microscope. The clinical manifestations vary, depending on the location and severity of the disease.

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