

# Sinus pericranii in a young adult with chronic headache

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## DESCRIPTION

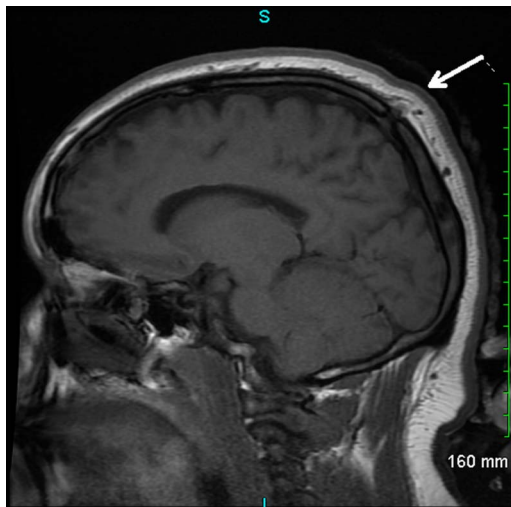
An 18-year-old-man, with no relevant medical history, presented to the outpatient clinic for the evaluation of chronic headache. The patient described a waxing waning pressure sensation in the occipital area that had started a few months prior, and was slowly progressing in severity. The patient denied any head trauma, exacerbating factors or associated symptoms. He did not use

tobacco, alcohol or illicit drugs. Family history was non-contributory, and medications included occasional use of over the counter analgesics, with only partial relief of the pain. No apparent scalp abnormalities on inspection, or tenderness on palpation. Physical examination, including neurological examination, was non-focal. Laboratory studies including complete blood count and comprehensive metabolic panel, were normal.

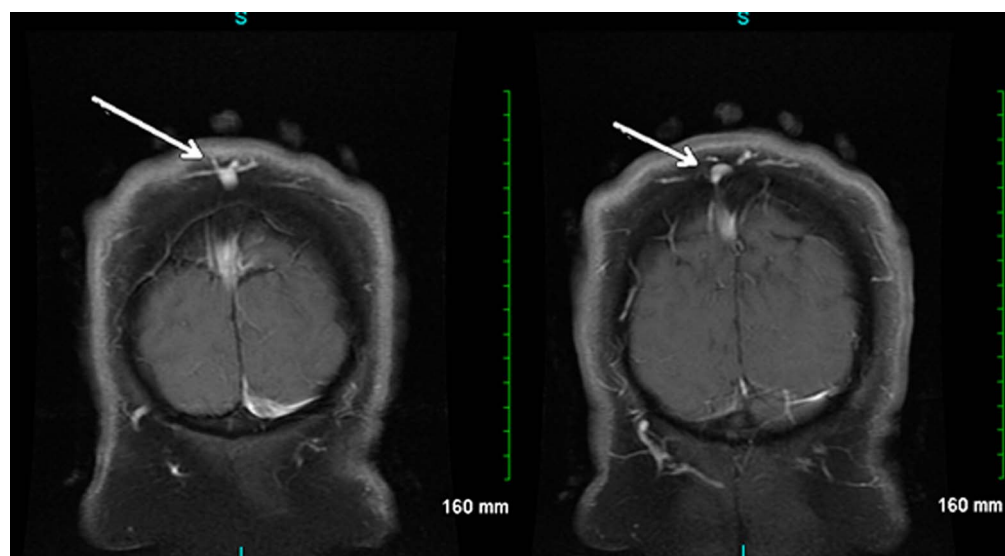
MRI of the brain showed a prominent extracranial scalp vein in direct communication, through a calvarial defect, with the superior sagittal sinus (figures 1 and 2). MR angiography showed normal anterior and posterior circulation, with no evidence of aneurysm, arteriovenous malformation or high-grade stenosis. Radiological findings were consistent with sinus pericranii.

First described in 1850,<sup>1</sup> sinus pericranii is a congenital or acquired disorder characterised by extracranial vascular lesions with anastomotic connections to an intracranial dural sinus.<sup>2</sup>

Patients are usually asymptomatic, or present with vague symptoms such as headache, nausea and vertigo. Treatment is commonly pursued for cosmetic reasons.<sup>3</sup> However, surgical correction has been advised to prevent rare complications, such as haemorrhage, infection or emboli.<sup>4</sup> Although a rare entity, sinus pericranii should be considered as a cause of non-specific chronic headache in young adults, with normal physical and laboratory findings.



**Figure 1** MRI of the brain showing a prominent extracranial scalp vein in direct communication with the superior sagittal sinus through a calvarial defect.



**Figure 2** MRI of the brain showing a prominent extracranial scalp vein in direct communication with the superior sagittal sinus through a calvarial defect.

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## Learning points

- ▶ Sinus pericranii is a congenital or acquired disorder characterised by extracranial vascular lesions with anastomotic connections to an intracranial dural sinus.
- ▶ Sinus pericranii is usually asymptomatic but can present with chronic headache, nausea, vertigo, haemorrhage or infection.
- ▶ Although a rare entity, sinus pericranii should be considered as a cause of non-specific chronic headache in young adults, with normal physical and laboratory findings.

**Competing interests** None.

**Patient consent** Obtained.

**Provenance and peer review** Not commissioned; externally peer reviewed.

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