Sinus pericranii diagnosis

Ultrasound

Color Doppler may show communication with superficial veins and dural venous sinuses [1)]

CT

Non contrast

slightly increased attenuation compared with brain parenchyma

may show an associated cranial vault defect

Post contrast

unless thrombosed, the abnormal communication between dural sinuses and the cranial vault will tend to enhance to the same degree as cerebral venous structures

MRI

Signal may vary due to slow flow. An abnormal communication between dural sinuses and the cranial vault is usually seen.

DSA

DSA can be helpful for definitive diagnosis and deciding treatment option, through analyzing venous flow dynamics and discovering the vascular nature.

Some authors recommend direct percutaneous venography as a confirmatory tool, however, it is associated with a high risk of bleeding and infarction [2)].

1)
Luker GD, Siegel MJ. Sinus pericranii: sonographic findings. AJR Am J Roentgenol. 1995 Jul;165(1):175-6. PubMed PMID: 7785580.
2)
Akram H, Prezerakos G, Haliasos N, O'Donovan D, Low H. Sinus pericranii: an overview and literature review of a rare cranial venous anomaly (a review of the existing literature with case examples). Neurosurg Rev. 2012 Jan;35(1):15-26; discussion 26. doi: 10.1007/s10143-011-0325-6. Epub 2011 Jun 9. Review. PubMed PMID: 21656130.