Teaching Neuro*Images*: Sinus pericranii

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An 18-year-old woman was referred for a slowly growing tumor on her scalp, which had been present since her birth. Examination revealed a soft-tissue non-pulsating mass on her scalp (figure 1) which became larger in recumbent position and with Valsalva maneuver. CT showed that almost the entire venous system drained through enlarged parietal foramina with dilated emissary veins connected to multiple subcutaneous veins, which is called sinus pericranii (SP) (figure 2). Generally, SP is located frontally in the midline and connected with the superior sagittal sinus. SP is commonly asymptomatic, and classified as dominant if the major venous flow is through the SP and accessory if it concerns a minor part of the venous flow. The prognosis is nearly always good with a low risk of bleeding. Only accessory SPs can be treated safely by surgical intervention or endovascular embolization.[1,2] Treatment is not recommended for dominant SP and we did not recommend treatment in this case.

Figure 1 Skull x-ray showing the tumor (T) in the parieto-occipital region of the skull

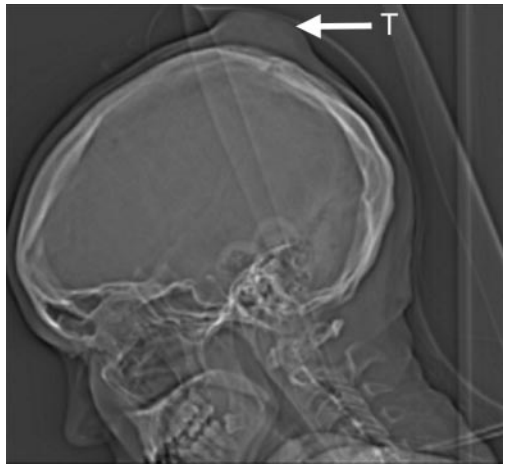
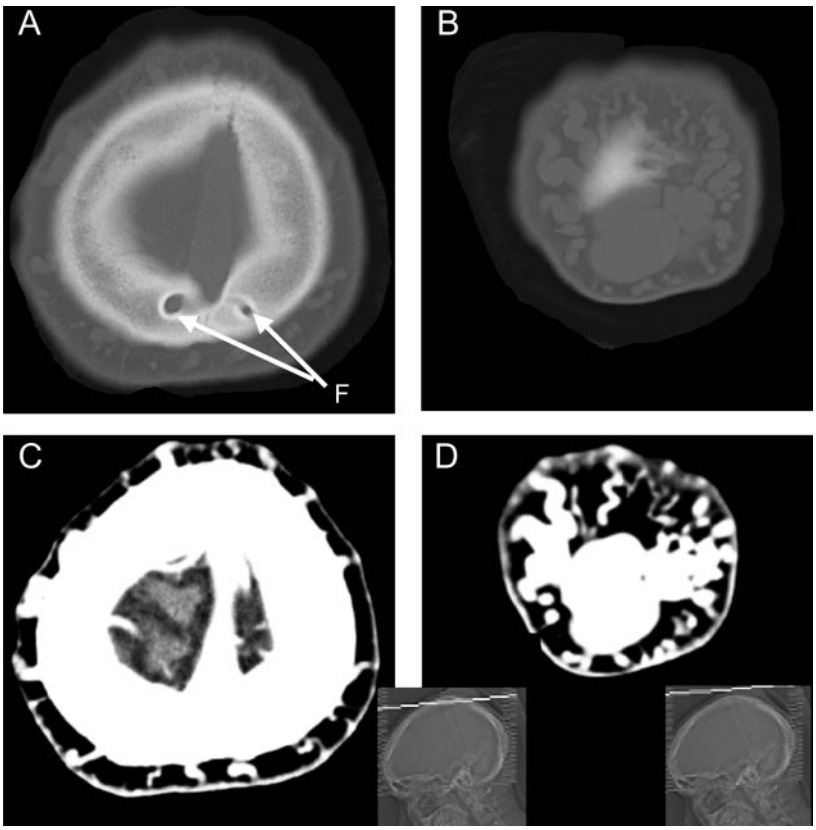


Figure 2 CT scan without (A and B) and with contrast (C and D) just beneath (A and C) and just above (B and D) the skull



CT scan without (A and B) and with contrast (C and D) with axial slices intracranially just under (A and C) and extracranially just above (B and D) the skull through the tumor, showing bilateral enlarged parietal foramina (F) with dilated emissary veins and the varicosity of the tumor. Not shown here, but visible on CT, were hypoplasia of the falx, bilateral small transverse and sigmoid sinuses, and small jugular foramina with minimally developed jugular veins.

REFERENCES

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