Neurochirurgisch centrum Noord-West-Vlaanderen

Giant extracranial hemangioma in an adult

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Introduction

Hemangiomas, are common benign tumors in infancy and childhood. Generally, these vascular tumors develop during the first year of life and most lesions regress by 10 years of age.[1] Giant hemangiomas, defined as tumors with a diameter of at least 5 cm, of the scalp have rarely been reported.[1,2]

Case report

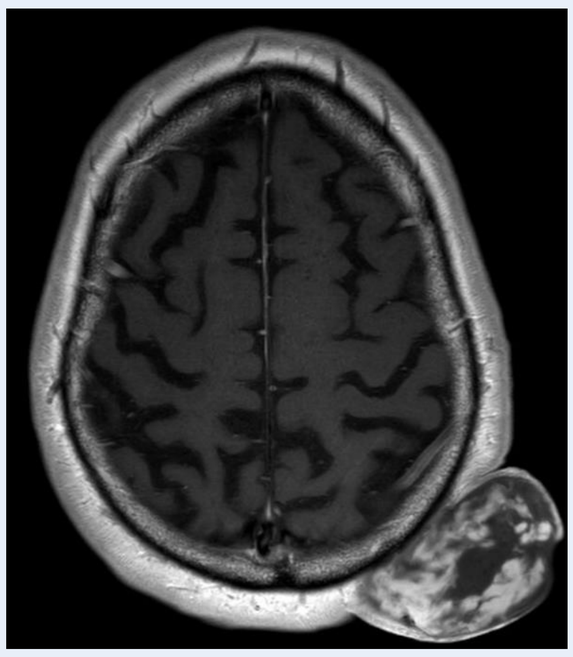
An 81-year old man presented with a slowly growing, painless mass in the left parietal region of the scalp. Imaging confirmed an extracranial lesion with contrast enhancement and calcifications *(Fig. 1 and 2)*. There was no erosion or invasion of the adjacent bone *(Fig. 3)*.

The mass was completely removed with the use of a full thickness skin (scalp) graft and an advancement flap *(Fig. 4 and 5)*. The tumor was located beneath the aponeurotica galea but it didn't destruct or invade the adjacent bone.

Histological examination confirmed the presence of an encapsulated (cavernous) hemangioma, partially thrombosed, with no evidence of malignancy *(Fig. 6 and 7)*. The patient recovered well, with good esthetic result (*Fig. 8*).

Discussion

Giant hemangiomas determining deforming masses in the scalp have been rarely reported in literature, especially in adults.[3] They affect mainly the pediatric population and regress spontaneously. Our patient developed a giant hemangioma at older age. Most hemangiomas arise from the calvaria or have a muscular origin.[4] However, during surgery, there was a clear boundary between the tumor capsule and the skull or the muscle. This leads us to believe that the pericranium is the origin of the tumor reported here.



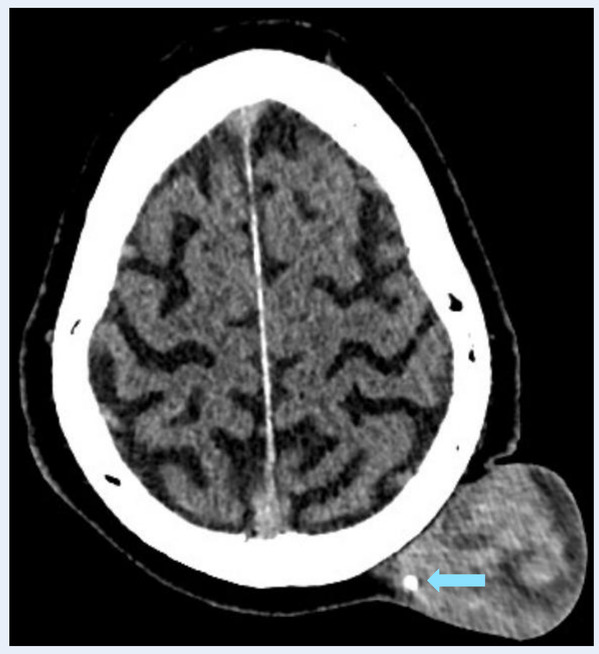


Fig. 1 and 2: Preoperative MRI and CT showing a well-delineated subcutaneous mass with contrast enhancement on MRI and focal calcifications (blue arrow).

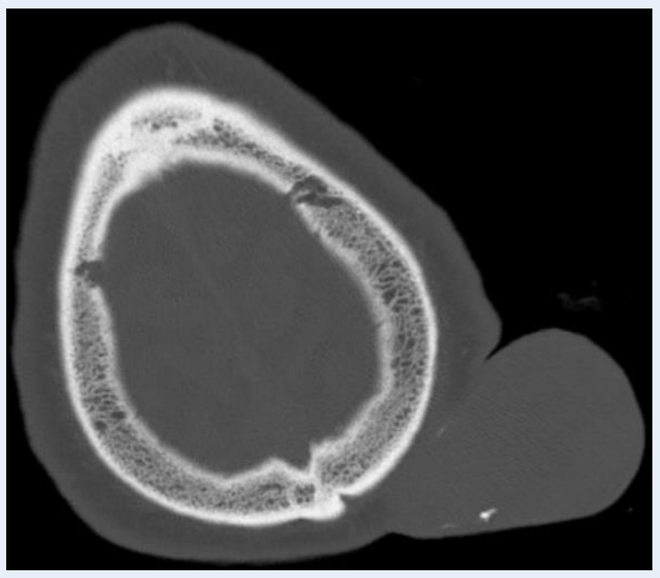


Fig. 3: Preoperative CT showing no erosion or invasion of the adjacent bone

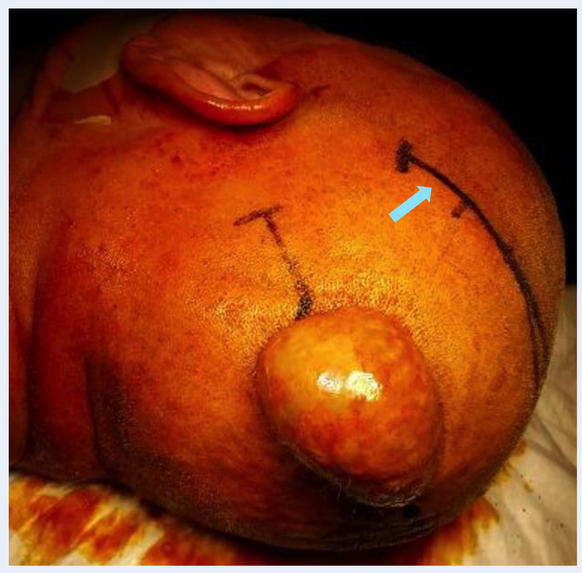


Fig. 4: Preoperative view after installation of the patient. A parallel incision is drawn for the advancement flap (blue arrow).

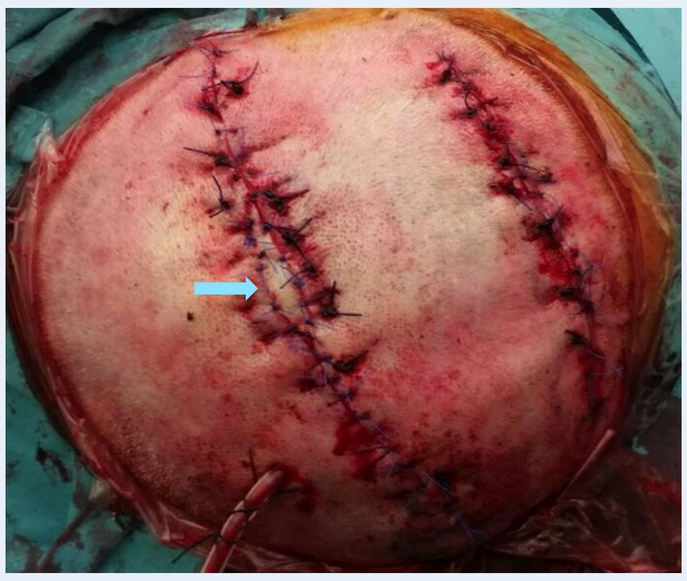


Fig. 5: After resection of the tumor, the wound is closed with the use of the advancement flap and an autologous full thickness skin graft (blue arrow).

Fig. 6: Photograph of the surgical specimen showing a surrounding fibrous capsule (blue arrow) and large blood clots on the inside.

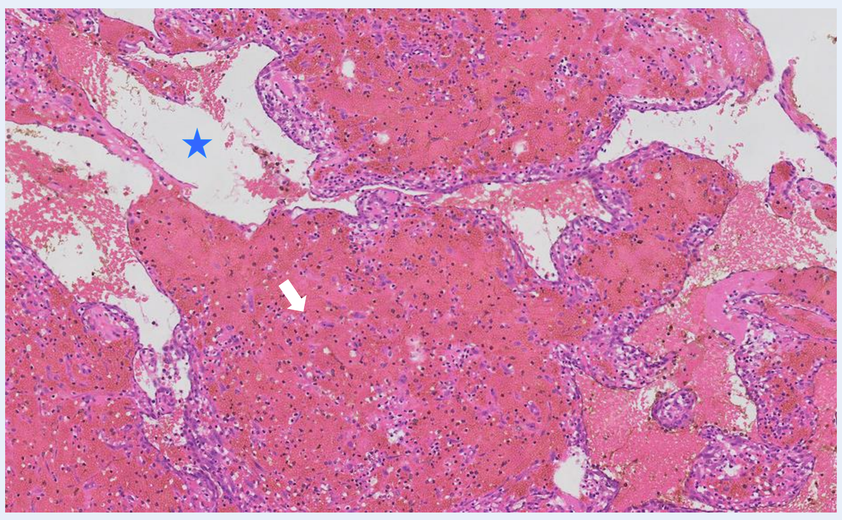


Fig. 7: Histological examination showing dilated and anastomosing vascular spaces (blue asterisk) with secondary haemorrhage and inflammation (white arrow).

Fig. 8: 5 weeks after surgery.

Conclusion

To the best of our knowledge, this is the first reported case of a giant scalp hemangioma in an elderly patient.

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3) Poppe C, Tockel S, Sebastian G. giant cavernous hemangioma of the scalp. Hautarzt; 2002.
4) Tokuda Y, Uozumi T, Katsuaki S. Giant congenital capillary hemangioma of pericranium. Neurol Med Chir; 1990.