edema is also common, being seen in 77–90% of cases[1,3–6]. On CT scans, CNS lymphomas are typically hyperdense, because they are hypercellular and have a high nucleus-cytoplasm ratio[1,3]. On MRI, they often demonstrate a hypointense or isointense signal in T1-weighted sequences and an isointense or hyperintense signal in T2-weighted sequences. After intravenous administration of contrast medium, they show homogeneous (90%) or, in rare cases, annular enhancement. They also exhibit signs of restricted water diffusion. Perfusion-weighted imaging shows less vascularization than that seen in other malignant brain tumors. On magnetic resonance spectroscopy, CNS lymphomas show elevated lipid and choline peaks, as well as a reduction in N-acetyl-aspartate levels[1,3–5]. The definitive diagnosis is made by biopsy[1,2,4,6]. Such lymphomas respond to chemotherapy and radiotherapy, the surgical option being used for tumor mass reduction[1,3–5]. Overall survival ranges from 15% to 80%, depending on the age of the patient, as well as on the characteristics and stage of the disease[2,4].

The list of differential diagnoses of expansile CNS lesions in imaging studies is extensive, including glioma, acute ischemia, inflammatory processes, and infectious diseases[1,3–5,7–11]. When such lesions appear in an intraventricular location and are hyperdense on CT, they can be confused with colloid cysts, which are common at that site and exhibit similar density[4].

Burkitt-like lymphomas are highly malignant, with cellular characteristics intermediate between those of diffuse non-Hodgkin large B-cell lymphoma and those of Burkitt lymphoma[12–14]. Burkitt-like lymphomas are typically associated with infection—HIV or the Epstein-Barr virus. They account for 2–3% of non-Hodgkin lymphomas in immunocompetent adults, being most common among the elderly[12–14]. Burkitt-like lymphomas can affect the brain, intestines, skin, ovaries, kidneys, liver, and bone marrow[12]. Chemotherapy is the most widely used treatment, although, even with treatment, survival is less than one year[13,14].

The term "vanishing tumor" refers to a tumor that shows marked regression or disappears, with or without nonspecific therapy, and can recur or progress to new forms[2,4,15,16]. In the brain, lymphomas often occur after corticosteroid therapy, demyelinating diseases, or inflammatory disorders[15,16].

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Giant cell tumor of the frontal sinus: a typical finding in an unlikely location

Dear Editor,

A 32-year-old female patient was admitted to the emergency room complaining of a knot on her forehead that had appeared 24 hours earlier. The patient underwent computed tomography (CT) of the skull, with and without intravenous administration of iodinated contrast medium. The CT scans revealed a dense, spontaneous, expansile extra-axial formation with its epicenter in the right frontal sinus, featuring an evident air-fluid level and well-defined borders (Figure 1A). On T2-weighted magnetic resonance imaging (MRI) sequences, the lesion also showed an air-fluid level (Figure 1B). A contrast-enhanced axial MRI scan showed peripheral enhancement (Figure 1C). The patient underwent surgery for complete resection of the lesion. The pathological examination demonstrated tumor-free margins, and immunohistochemistry showed that the lesion was characteristic of a giant cell tumor (GCT) of bone (Figure 1D).

GCT is one of the most common primary bone tumors, accounting for approximately 10% of all bone tumors and 25% of all benign bone tumors[1]. It mainly affects individuals 20–40 years of age and has an insidious onset, presenting with pain and a local increase in volume[1]. It is usually located in the epiphyses or metaphyses of the long bones, most commonly in the knees (distal femur or proximal tibia). Although it affects less than 1% of all bone sites within the skull (mainly the temporal and sphenoid bones), GCT tends to be more aggressive when it occurs at such sites[2–4].

Based on the classical radiographic aspects, GCT of bone can be defined as a lytic, expansile lesion, resulting in thinning or erosion of the cortical bone[5]. CT is the best method to evaluate bone destruction and to identify pathological fractures. MRI can reveal soft tissue invasion and cystic areas (secondary

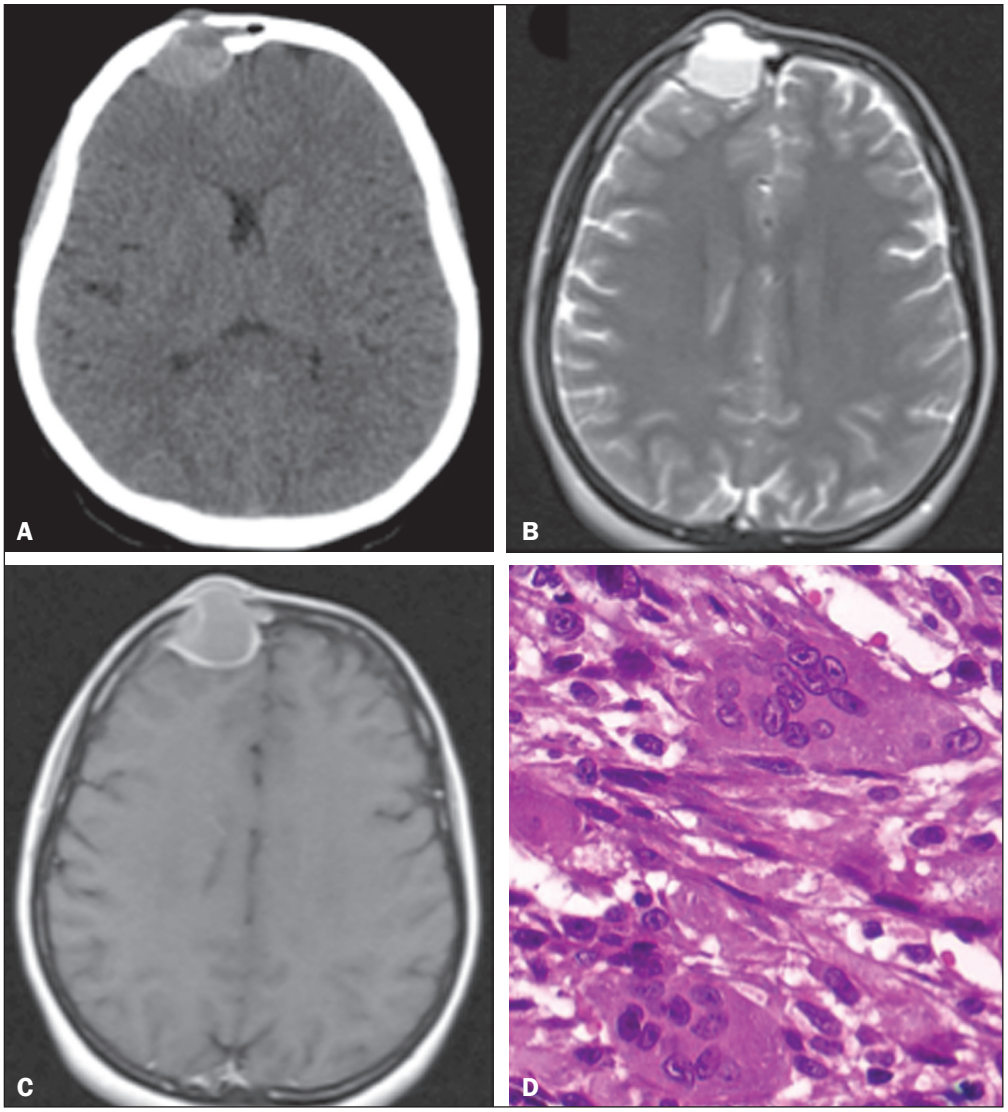

Figure 1. A: Axial CT of the skull, after intravenous administration of contrast material, showing a dense, spontaneous, expansile extra-axial formation, measuring 3.1 × 2.5 × 2.9 cm, with its epicenter in the right frontal sinus, featuring bone destruction, an evident air-fluid level, and well-defined borders. **B:** T2-weighted axial MRI slice that best identified the predominantly cystic lesion with an air-fluid level due to the blood content, responsible for the rapid expansion of the tumor. **C:** Contrast-enhanced axial MRI slice showing marked peripheral enhancement. **D:** Histological section stained with hematoxylin and eosin, demonstrating spindle cell morphology, in a fascicular pattern, surrounding numerous large multinucleated osteoclasts.

aneurysmal hemorrhages or cysts)[6,7]. The definitive diagnosis is made through the identification of giant cells in the histological analysis.

We believe that radiological symptom assessment is of great importance for the diagnosis of bone diseases, because some lesions allow a specific etiological diagnosis, whereas others must be treated on the basis of the description of the findings alone. In the present case, the radiological findings were quite typical. However, the extremely atypical location made it difficult to establish a specific diagnosis. There have been few reported cases of GCT of the skull; hence the relevance of this case.

In the case presented here, CT and MRI were both of extreme importance in the surgical planning and in the postoperative follow-up. The prognosis was favorable, and the patient progressed well in the postoperative period, without the need for radiotherapy. At this writing, she has been followed for approximately two years, without complaints or signs of local recurrence.

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