The rupture of an endometrioma is a rare event, with an estimated incidence of less than 3% among women of childbearing age who are known to have endometriomas[5]. This situation occurs more commonly during pregnancy, due to hormonal stimulation of endometrial stromal elements[2], albeit with larger (≥ 6.0 cm) lesions[6].

The imaging aspect of endometrioma is that of an ovarian cyst with heterogeneous content, irregular contours, and parietal discontinuity, together with hemoperitoneum, which can be seen as heterogeneous fluid content on ultrasound and as a collection with a hyperintense signal in T1-weighted MRI sequences. In an emergency setting, its presentation may mimic other acute gynecological conditions, such as corpus luteum, ectopic gestation, and even spontaneous hemoperitoneum[7,8]. In addition, the rupture of endometriomas can significantly increase serum CA-125 levels, mimicking ovarian epithelial neoplasms[9]. However, a history of endometrioma, previous examinations demonstrating endometriomas, or endometriomas accompanied by peritoneal blood content in emergency imaging studies should raise the suspicion of spontaneous rupture.

The importance of the preoperative diagnosis is to support treatment strategies. Although some milder cases can be managed conservatively, there is a tendency toward greater use of early surgical exploration because of long-term undesirable effects of cyst fluid in the peritoneal cavity, such as adhesions, pelvic pain, and infertility[6]. In addition, the presumptive diagnosis of ruptured endometrioma, rather than ovarian neoplasms, facilitates the decision to perform laparoscopic exploration and allows the surgeon to perform the procedure with greater confidence.

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Eduardo Kaiser U. N. Fonseca[1,a], Bruna Bringel Bastos[1,b], Fernando Ide Yamauchi[1,c], Ronaldo Hueb Baroni[1,d]

1. Hospital Israelita Albert Einstein, São Paulo, SP, Brazil.

Correspondence: Dr. Fernando Ide Yamauchi. Hospital Israelita Albert Einstein – Departamento de Imagem. Avenida Albert Einstein, 627, Jardim Leonor. São Paulo, SP, Brazil, 05652-900. E-mail: fernando.yamauchi@einstein.br.

a. https://orcid.org/0000-0002-0233-0041; b. https://orcid.org/0000-0001-9875-8458; c. https://orcid.org/0000-0002-4633-3711; d. https://orcid.org/0000-0001-8762-0875.

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Primary intraosseous meningioma: atypical presentation of a common tumor

Dear Editor,

A 41-year-old woman presented with an approximately one-year history of progressive facial swelling and left-sided visual impairment. A computed tomography (CT) scan of the skull showed a sclerotic, expansile lesion on the lateral/upper wall of the left orbit, narrowing and extending to the optic canal. Magnetic resonance imaging (MRI) showed a lesion with a hypointense signal in T1-weighted and T2-weighted sequences, without significant contrast uptake, accompanied by a slight contrast-enhanced thickening of the subjacent dura mater, which was compressing the left optic nerve. A histopathological study confirmed the suspected diagnosis of intraosseous meningioma.

Recent studies in the radiology literature of Brazil have emphasized the importance of imaging examinations in improving the diagnosis of central nervous system disorders[1–3]. Meningioma is the most common primary intracranial tumor,

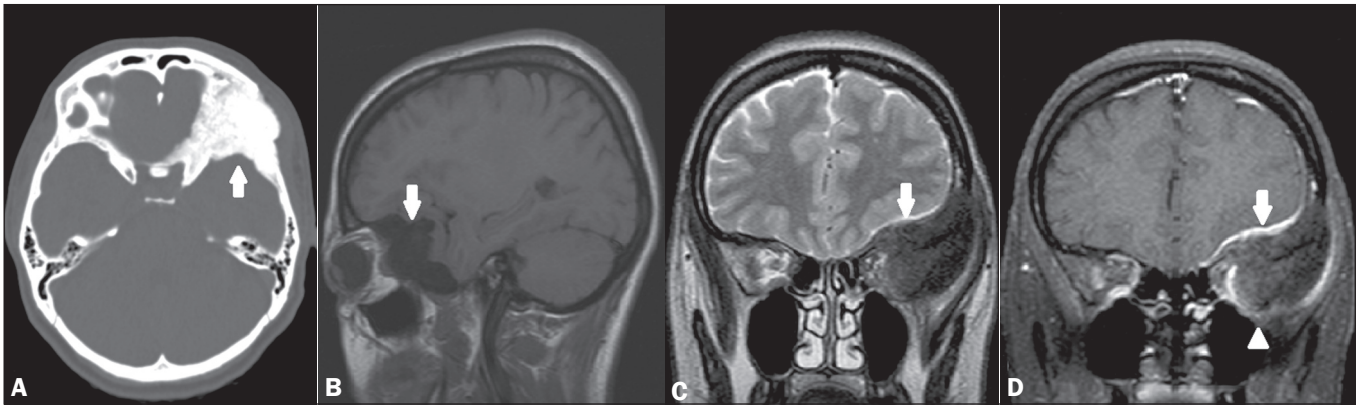

Figure 1. A: Axial CT scan, with bone window settings, showing an expansile, osteoblastic lesion, affecting the upper/lateral wall of the left orbit (arrow). **B:** Noncontrast sagittal T1-weighted MRI sequence, showing a lesion with a hypointense signal (arrow). **C:** Coronal T2-weighted MRI sequence, also showing the lesion with a hypointense signal (arrow). Also note the compressive effect and displacement of the intraorbital structures, including the optic nerve. **D:** Contrast-enhanced coronal T1-weighted MRI sequence, showing a lack of significant contrast uptake within the lesion (arrowhead), with only slight uptake in the dura mater subjacent to the tumor (arrow).

representing approximately 14–20% of cases. The vast majority are intradural lesions, extradural lesions accounting for only 1–2%[4]. Extradural meningiomas affect the cranial vault in 68% of cases, such lesions being referred to as primary intraosseous meningiomas (PIMs), which mainly affect the frontal and parietal bones, as well as the region of the orbit[5–7]. Other common locations for extradural involvement are the subcutaneous tissue, paranasal sinuses, and parapharyngeal spaces, as well as, in rare cases, the lungs and adrenal glands[5,6]. Unlike typical intradural meningiomas, which primarily affect females between the ages of 50 and 69 years and usually have a benign course, PIMs can affect either gender, have a peak incidence in the second decade of life, and are more likely to evolve to malignant degeneration[6].

On CT, most PIMs (65%) present as expansile, osteoblastic bone lesions, with or without cortical destruction[6]. On MRI, they commonly hypointense in T1- and T2-weighted sequences, typically without significant contrast enhancement, as in the case reported here[5]. However, in rarer cases, if a PIM presents as an osteolytic lesion on CT, an MRI scan can show a hypointense signal in T1-weighted sequences and a hyperintense signal in T2-weighted sequences, as well as contrast enhancement[6,7]. Although PIMs do not present the dural tail sign that is often found in intradural meningiomas, there can be contrast uptake in the dura mater subjacent to the tumor due to venous stasis or to tumor invasion, as demonstrated in our case[7]. There are inherent differences between CT and MRI, the former allowing better delineation of bone involvement, whereas the latter provides a better assessment of the soft-tissue involvement and extradural extent of the lesion[6].

The differential diagnosis of osteoblastic PIM includes typical intradural meningioma with reactive hyperostosis, in which the meningeal component of the lesion is the most obvious. Other diagnoses that should be considered are metastases, plasmacytoma, fibrous dysplasia, osteoma, osteosarcoma, and Paget's disease[6].

In most cases of PIM, the treatment is total surgical resection, with subsequent cranial reconstruction. If the resection is partial, there should be radiological follow-up; if the disease has recurred or if the residual lesion has progressed, the next surgical procedure can be accompanied by adjuvant radiotherapy[6].

In conclusion, although rare, PIMs should be considered in the differential diagnosis of bone lesions, especially when the lesions are osteoblastic and located in the cranial vault.

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Benardo Carvalho Muniz[1,a], Bruno Niemeyer de Freitas Ribeiro[1,b], Nina Ventura[1,c], Emerson Leandro Gasparetto[1], Edson Marchiori[2,d]

1. Instituto Estadual do Cérebro Paulo Niemeyer – Departamento de Radiologia, Rio de Janeiro, RJ, Brazil. 2. Universidade Federal do Rio de Janeiro (UFRJ), Rio de Janeiro, RJ, Brazil.

Correspondence: Dr. Bernardo Carvalho Muniz. Instituto Estadual do Cérebro Paulo Niemeyer – Departamento de Radiologia. Rua do Resende, 156, Centro. Rio de Janeiro, RJ, Brazil, 20231-092. E-mail: bernardocmuniz@yahoo.com.br.

a. https://orcid.org/0000-0003-1483-2759; b. https://orcid.org/0000-0002-1936-3026; c. https://orcid.org/0000-0003-2364-1612; d. https://orcid.org/0000-0001-8797-7380.

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Hemobilia in a patient with arteriobiliary fistula after liver contusion

Dear Editor,

We report the case of a 25-year-old male patient with a history of blunt abdominal trauma (from a motorcycle accident), who presented with abdominal pain. Full abdominal computed tomography (CT) with intravenous contrast administration revealed that the patient had grade 2 liver contusion in the right lobe. Because the patient was hemodynamically stable, we opted for conservative treatment. However, he evolved to hemodynamic instability. An exploratory laparotomy revealed a mosaic pattern of liver injury, which was treated with hepatorrhaphy. On the eighth day after surgery, the patient was in a stable, lucid state and was discharged. However, he returned 17 days later with abdominal pain after a large meal, together with voluminous hematemesis and hypovolemic shock. We then performed abdominal CT angiography (Figure 1), which revealed a pseudoaneurysm in the right hepatic artery, in close proximity to the liver contusion. There was also spontaneously hyperdense content within the gallbladder, suggesting arteriobiliary fistula. Upper gastrointestinal endoscopy showed blood clots and active bleeding in the papilla of Vater, and arteriography (performed at a different facility) confirmed the existence of pseudoaneurysm in the right hepatic artery in the subbranch of liver segment V, with contrast extravasation suggestive of rupture. Therefore, embolization was carried out.

Hemobilia is an uncommon condition and is one of the differential diagnoses of upper gastrointestinal hemorrhage[1]. There are many causes of hemobilia, such as iatrogenic and accidental traumas, as well as gallstones, inflammation, vascular malformations, and tumors[2]. The clinical manifestations of hemobilia are determined by the quantity and velocity of the hemorrhage within the biliary tract. Its symptoms are jaundice, right hypochondrium pain, and gastrointestinal hemorrhage (ranging from chronic bleeding, resulting in anemia, to massive bleeding with hypotension), and it can develop several months after a trauma[4,5].

The improvement of radiological techniques has been fundamental in the diagnosis and treatment of hemobilia, especially in cases of traumatic pseudoaneurysms[3]. In patients with upper gastrointestinal hemorrhage, upper gastrointestinal endoscopy is the examination of choice, because it can identify blood clots in the ampulla of Vater and rule out other causes of bleeding. Ultrasound is a rapid, noninvasive method that is useful and effective in the detection of hemobilia, potentially revealing blood clots or echogenic intraluminal material in the biliary tree or gallbladder. However, contrast-enhanced CT (in the arterial phase) can detect pseudoaneurysms, obstruction of