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Case Report

Exophytic hepatic hemangioma: a case report☆

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ABSTRACT

Hepatic hemangiomas may rarely arise outside the extra-hepatic capsule. It appears as a pedunculated mass. We report the case of a 58-year-old female presenting with abdominal chronic pain. Incidental diagnosis of a pedunculated hepatic hemangioma was suggested by ultrasonography confirmed by typical imaging features on computed tomography. Dynamic contrast- enhanced computed tomography and MR scan are relevant to approach the diagnosis of hemangioma, showing its origin from the liver edge and typical radiological features Surgical removal of the mass was performed to prevent volvulus along the pedicle. Pathological analysis confirmed the diagnosis of pedunculated benign hepatic hemangioma.

Introduction

Hemangiomas are the most common benign hepatic tumors in adults, with an overall incidence of 7%-20% [1]. Hemangiomas are mostly asymptomatic and discovered incidentally during radiological abdominal imaging. Typical hemangiomas have common pathognomonic imaging features including progressive nodular discontinued enhancement from the periphery to the center of the lesion [2]. They may occasionally develop outside the extra-hepatic capsule appearing as a pedunculated and being confused with other tumors.

Case report

A 59-year-old female patient presented with chronic abdominal pain. A peri-hepatic mass was incidentally detected on ultrasonography. Enhanced CT scan revealed a 4-cm well-defined and lobulated mass, located under and protruding from the liver. This mass presented progressive peripheral- and globular-pattern enhancement characteristic of hemangioma (Fig. 1). Multiplaner reconstructions showed a thin pedicle originating from the VI liver segment. Surgical removal of the mass was performed to avoid ischemic complication related to pedicle torsion. Pathological analysis confirmed the diagnosis of pedunculated benign hepatic hemangioma.

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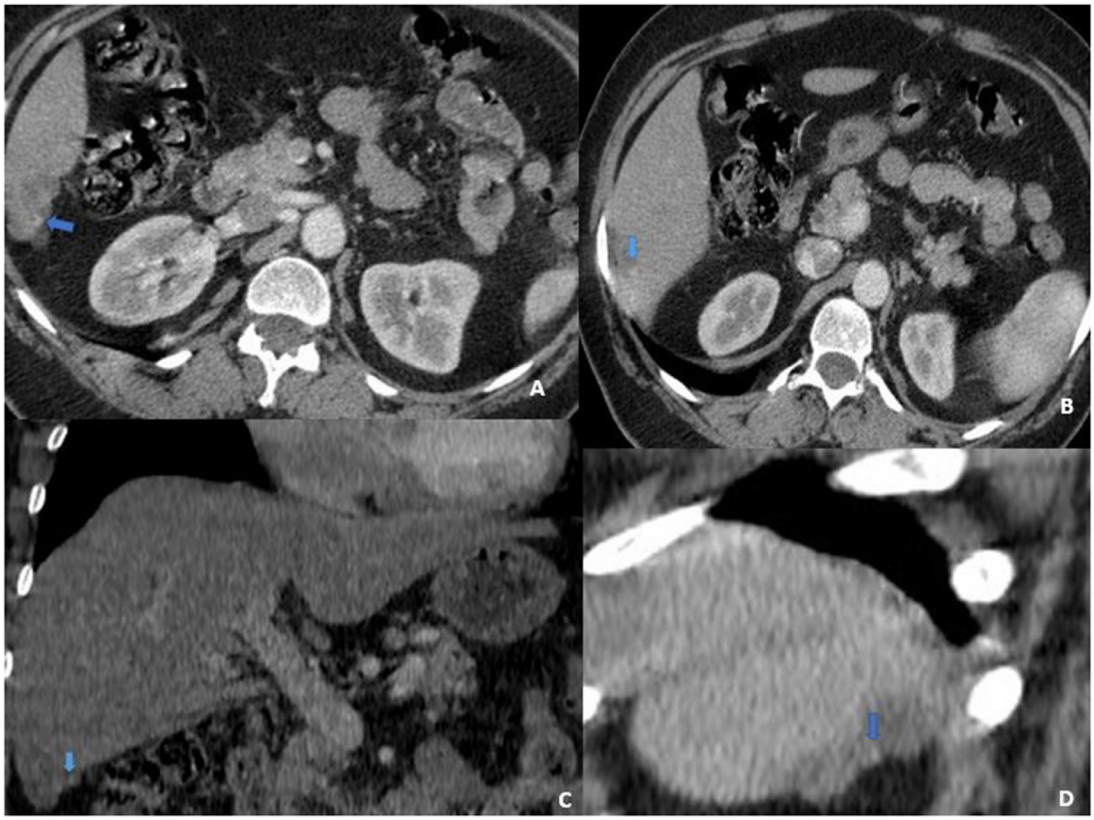

Fig. 1 – CT scan, axial, coronal, and sagittal plans (A–D) in portal phase shows peripheral nodular enhancement pattern of the subhepatic lesion.

Discussion

Hemangioma is the most frequent benign liver solid tumor. The majority of the cases are incidentally diagnosed on US, CT, or MR examinations. Exophytic growth and pedunculated presentation of hemangiomas are very rare. The majority of hemangiomas are asymptomatic but larger tumors may produce complications such as compression or hemorrhage and spontaneous rupture [3].Typical hemangiomas show early nodule-like peripheral enhancement on dynamic contrast CT/MR, with high signal on MR T2-weighted images, persistent enhancement on delayed CT/MR-images [4].

Pedunculated hemangiomas are extremely rare. Clinical manifestations are usually related to either mass effect on adjacent structures, torsion of the pedicle leading to infarction [5]. Ultrasound is often difficult, because of uncommon location and variable morphology of the mass lesion. However, contrast enhanced CT and MR imaging means yields accurate thin sections, high contrast resolution, typical hemodynamic patterns, and multiplanar reformations to show pedicle [6].

In our case these typical radiological findings leads to diagnosis. The main differential diagnosis is Hepatocellular carcinoma with extra-hepatic exophytic growth. Dynamic diffuse enhancement pattern during hepatic arterial phase usually make the difference.

The diagnosis of pedunculated hemangioma undergoing torsion may be challenging due to ischemia and subsequent necrosis [7].

Percutaneous biopsy is not recommended owing the risk of massive intraperitoneal bleeding and rupture.

Surgical examination seems to be the most appropriate diagnosis and therapeutic option to avoid complications [8].

Conclusions

Despite the fact that hepatic hemangiomas are the most frequent benign liver tumor, the pedunculated form is rare and may be misdiagnosed .CT/MR hemodynamic patterns will lead to the final diagnosis with a thin pedicle originating from the liver edge. Surgical resection is indicated to prevent torsion.

Patient consent

The authors confirm that informed consent for publication has been obtained.

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