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IMAGE | LIVER

A Safely Resected, Very Large Hepatic Hemangioma

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CASE REPORT

A 32-year-old woman underwent medical evaluation for painless hepatomegaly. Triphasic computed tomography of the liver revealed multiple hepatic hemangiomas, the largest in the right hepatic lobe (diameter 27 cm). Clinical analysis revealed mild pancytopenia, normal liver function tests, and α-fetoprotein 2.05 ng/mL. The patient was kept under surveillance, and on 1-year follow-up the right hepatic hemangioma had increased to a diameter of 29 cm (Figure 1). As the remaining unaffected liver volume of the patient was 35%, an extended right hepatectomy with cholecystectomy was performed (Figure 2). Histopathology reported a cavernous hemangioma 25 × 20 × 5 cm in size and 4,100 g in weight, with multiple infarcts

Figure 1. Contrast-enhanced computed tomography of the liver with well-demarcated hypodense masses, peripheral nodular enhancement, and a filling-in centripetal pattern during the late phases.

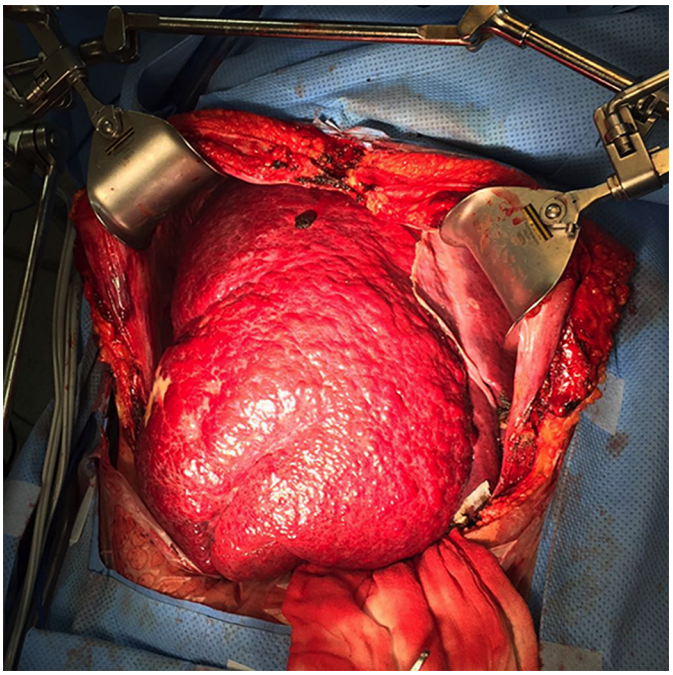

Figure 2. Surgical appearance of the giant hepatic hemangioma before extended right hepatectomy.

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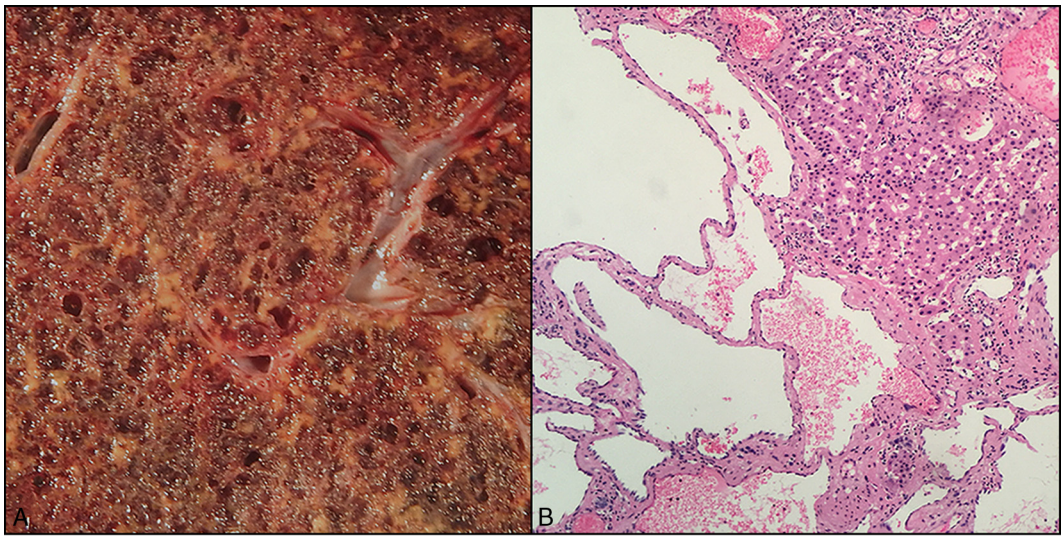

Figure 3. (A) Macroscopic surface photography of resected liver hemangioma showing a red-brown appearance and spongy consistency with additional hemorrhage and scarring. (B) Hematoxylin and eosin staining showing cavernous vascular spaces of varying sizes, filled with blood and lined by single layers of flat endothelium (magnification 40×).

and acute and chronic re-canalized thrombosis (Figure 3). After 1-year follow-up, the patient remained asymptomatic and her pancytopenia resolved.

Liver hemangiomas are the most common benign liver tumors of mesenchymal origin.[1] They can be single or multiple, may be present in both the right and left lobes of the liver, and are usually classified by size as small ($\leq$5 cm) and giant (>5 cm).[2,3] Liver hemangiomas usually have an indolent course, but when the tumor is very large, the patient can present with abdominal pain, right upper quadrant discomfort or fullness, symptoms of extrinsic compression, pancytopenia, prolonged prothrombin time, and Kasabach-Merritt syndrome.[3] The diagnosis can be made with imaging studies such as ultrasound, computed tomography, or magnetic resonance imaging.[4] Small and asymptomatic hemangiomas can be kept under surveillance, but giant hemangiomas need a close radiologic follow-up at least annually, particularly those with a sub-capsular location because rapid growth is more likely and the risk of rupture is higher.[5] In giant hemangiomas with rapid growth, symptoms, atypical appearance suggestive of malignancy, and rupture with intra-abdominal bleeding, surgical resection is warranted.[3]

We present this case as an illustrative clinical, surgical, radiological, and histopathological correlation of a giant liver hemangioma, and how a very large lesion can be safely resected in a patient with an unaffected liver parenchyma above 30% of the total liver volume.

DISCLOSURES

Author contributions: D. Suárez-Flores, P. Moctezuma-Velázquez, and H. A. Díaz-Hernández wrote the manuscript. A. Gamboa-Domínguez and M. Vilatobá-Chapa edited the manuscript. A. Torre edited the manuscript and is the article guarantor.

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