Hepatic Angiomyolipoma - Case Report

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Abstract
Angiomyolipoma is a rare tumor most often arising in the kidney. We present a case of hepatic angiomyolipoma in a 45-year-old female diagnosed as incidental liver tumor and treated by arterial embolization and right hepatectomy.

KEYWORDS
Hepatic angiomyolipoma, Angiography, Hepatectomy

1 | INTRODUCTION
Angiomyolipoma is a rare mesenchyme-derived neoplasm, rarely found in the liver. Most often is a benign tumor requiring a conservative treatment. However, there are several cases reported with invasive growth, recurrence and metastases. There are several indications for surgery, mainly the presence of symptoms, big size and aggressive pathological findings in biopsy. We report a case of a 45-year-old female with a very large tumor incidentally discovered and treated by arterial embolization and right hepatectomy.

2 | CASE REPORT
A 45 year-old woman with obesity and previous thyroidectomy was diagnosed of a large liver tumor in abdominal ultrasonography after a pielonefritis episode. At abdominal exploration we found a 5 cm hepatomegaly and obesity. Ultrasonography showed a 14 cm liver echogenic tumor in the right lobe, with hypogenic zones. MRI (Figure 1) showed an hyperintense liver tumor with predominance of lipomatous tissue and well-circumscribed. The differential diagnoses with other benign liver tumors and angiomyolipoma is established.

Liver biopsy (large needle biopsy) by ultrasonography guidance shows angiomyolipoma with HMB-45 and SMA positive reaction and a mitotic index Ki67 of 3%. The very large size of the tumor and the desire of the patient let us to realize firstly arterial embolization and posteriorly right hepatectomy. The arterial embolization is carried out selectively by coils and particles (Figure 2). MRI after embolization shows a little reduction of the tumoral size. A right hepatectomy is carried out 5 months after embolization. The right hepatectomy is done by a subcostal laparotomy J-shape and vascular control of right pedicle and right hepatic vein. The postoperative evolution is in eventful. Pathological findings included an angiomyolipoma 14-12 cm in size, with free margins and reactive lymphadenopathy. The tumor is composed of fatty tissue, angiomatous tissue and cells with round nucleus and clear citoplasma, sometimes epitheloids. There is a 80% necrosis of the tumor and immunohistochemical staining revealed a positive reaction to HMB-45, Melan A, SMA and Vimentine, with a mitotic index Ki 67 of 1%. After a 3 years follow-up the patient is in good health, with a left lobe of the liver hypertrophic (Figure 3).

3 | DISCUSSION
Hepatic angiomyolipoma is a very rare tumor, being most frequent at level of the kidney. Many cases are diagnosed incidentally by radiological tests or have inespecific symptoms, as our patient. The tumor can achieve a large size until 35 cm. When the tumor has predominance of lipomatous tissue, the diagnosis is easy, but if there is a predominance of myomatous or angiomatous tissue, is necessary the differential diagnosis with other benign and malignant tumors of the liver. The best modality to determine the components of the tumor is de MRI, because the lipomatous lesions may determined as hyperintensity on the T1-weighted image. But the definitive diagnosis is done by liver biopsy (large needle biopsy). We found lipomatous

Figure 1: MRI at diagnosis
olipoma, with any case treated by liver transplantation after recurrence [4]. The employment of biopsy is controversial to avoid tumor dissemination in case of malignancy. However is frequently used to assure the diagnosis. Surgery is indicated when symptoms exists the diagnosis is not clear or there are signs of malignancy at biopsy. The very big tumors are often symptomatics and there is most difficult to establish a histological diagnosis of benignity in these cases. The conservative treatment is indicated in little tumors minor than 5 cm, without symptoms and without signs of bad prognosis in the biopsy. During the follow-up a significant growth or changes in tissue components of the tumor are signs of potential malignancy. The arterial embolization aids to reduce the tumoral size and the risk of bleeding during surgery.

REFERENCES