Fibrolamellar hepatocellular carcinoma: a rare entity diagnosed by abdominal ultrasound

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CASE REPORT

We present the case of a 16-year-old male with no previous medical history. He was referred from another hospital because of 4 kg weight loss, jaundice and upper right abdominal pain. He presented mildly elevated liver enzymes, negative hepatotropic viruses and normal levels of alpha-fetoprotein. A thoraco-abdominal computed tomography had been made in his reference hospital finding multiple nodular lesions in both lungs and a hepatic mass (14 x 10 cm). The patient was sent to us for diagnostic ultrasound-guided puncture.

In our study we found a solid, heterogeneous and encapsulated hepatic mass (13 x 10 cm). The lesion was mainly isoechoic with hyperechogenic areas, located on left liver lobe and segment 4 (Fig. 1), and there were no signs of chronic hepatopathy or portal or biliary permeability alterations. Using contrast enhanced ultrasonography we found peripheral hyperenhacement during arterial phase with progressive wash-out beginning at 2 minutes and 30 seconds (Fig. 2). The study was therefore suggestive of a solitary liver mass with malignant behavior: fibrolamellar hepatocellular carcinoma (FLHC) vs mesenchymal tumor (sarcoma). Fine needle puncture aspiration was made and immunophenotypic (Hep-par-1, CK7, Glypican-3 and CD68) and cytomorphologic findings were compatible with FLHC (Fig. 3). The patient was sent to the oncologist and is under oxaliplatin, folinate calcium and 5-fluorouracil.

DISCUSSION

FLHC is a histologic type of hepatocellular carcinoma that represents only 1% of all the primary liver tumors, with an incidence of 0.02 cases/100,000 individuals (1). This tumor is caused by DNAJB1-PRKACA mutation on chromosome number 9, with deletion in 8 genes: the most frequent are MUC4, associated to other gastrointestinal tumors, and GOLCA6L2 (2). The most commonly affected population is individuals under 40 years (65-85%) with no previous history of hepatopathy (3). Up to 70% of the cases are diagnosed in advanced stages (4) as symptoms are unspecific (abdominal pain 21-74%), levels of alpha-fetoprotein are normal and no signs of hepatopathy are present (1). Differential diagnosis must be done with nodular focal hyperplasia, hemangioma and classic hepatocellular carcinoma. First-choice treatment is surgical resection (1,5).
REFERENCES


