Hepatic mucinous cystadenoma of the left liver in a patient with right hepatectomy for hepatic hydatid cyst

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Abstract

Cystadenoma of the liver is a rare benign neoplasm with an intrahepatic ingrowth, with a representation of only 5 % of the hepatic cystic lesions. The literature describes the malignant degeneration in average of 10 % of cases. **Material and method:** We present the case of a 48 year old patient with personal surgical history of right hepatectomy for hepatic hydatid cyst, with a tumoral mass in the epigastric region accompanied by pain that appears spontaneous and by palpation. The abdominal-pelvic computer tomography performed carried out raised the suspicion of hepatic hydatid cyst. During surgery we identified the presence of a serous hepatic cyst in the segment IV of the liver. The result of the anatomical pathological examination has revealed a cystic mucinous neoplasm with low-grade dysplasia (cystadenoma of the liver). **Discussion** The biochemical tests are in most cases normal, the alkaline phosphatase and Bilirubin can be modified in the case in which the mass creates compression on the biliary ducts. As regards the tumor markers CA 19-9, they can have the value slightly raised; The surgical intervention is the treatment proposed in the majority of cases, within the oncological limits of resection. In this case, the patient's surgical antecedents (right hepatectomy) have made the resection in oncological limits impossible, the only option being the oncological dispensarisation and periodic biochemical and imaging monitoring. **Results** The clinical presentations of the hydatid hepatic cyst and hepatic cystadenoma may be similar as well as the imaging scans, such as ultrasonography, computer tomography, magnetic resonance, imaging may not establish a diagnosis of certainty.

Keywords: cystic mucinous neoplasm, cystadenoma of the liver, ovarian-like stroma, hepatic hydatid cyst

Introduction

Cystadenoma of the liver is a rare benign neoplasm with an intrahepatic ingrowth, with a representation of only 5 % of the hepatic cystic lesions. World Organization of Health defines hepatic cystic mucinous neoplasm as a cystic neoplasm with epithelioid origin, usual without communication with the biliary ducts, made out of cuboidal or columnar epithelium, with mucin production and ovarian-like stroma. The literature describes the malignant degeneration in average of 10 % of cases. We present the case of a 48 year old patient with personal surgical history of right hepatectomy for hepatic hydatid

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cyst, which has been admitted in elective regime in our clinic for the appearance of a tumoral mass in the epigastric region accompanied by pain that appears spontaneous and by palpation.

The abdominal-pelvic computer tomography performed carried out revealed the compensatory hypertrophy of the left liver lobe, which contains at the level of the segment IV a cystic mass with septum's inside, bounded by a thin wall with fluid content, with no response to contrast, which has raised the suspicion of hepatic hidatid cyst. Intraoperative we identified the presence of a serous hepatic cyst in the segment IV of the liver. The result of the anatomical pathological examination has revealed a cystic mucinous neoplasm with low-grade dysplasia (cystadenoma of the liver).

Case report

We report the case of a 48 year old patient with personal surgical history of right hepatectomy for hepatic hydatid cyst confirmed by histopathologic exam, which has been admitted in elective regime in our clinic for the appearance of a tumoral mass in the epigastric region accompanied by pain that appears spontaneous and by palpation, without any other symptoms. Clinical examination revealed supple abdomen, mobile with respiratory movements, painful epigastric region where we can feel a tumoral mass, with elastic texture, apparently that belongs to the left liver lobe, located at 4 cm below the rib rim. The biochemical tests had normal values and the abdominal ultrasonography performed revealed hypertrophic left hepatic lobe with an anterior-posterior diameter of 121 mm, the right hepatic lobe was surgically absent. In the hepatic segment IV was a transonic mass, with dimensions of 85/100/90 mm, with septums inside, the gallbladder was surgically absent, the porta vein and the intrahepatic ducts were normal, as the spleen and kidneys, retroperitoneal fluid collection of 78/35 mm, with

septuri inside, uterus with dimensions of 48/49/56 mm, inhomogeneous appearance. A computer tomographic examination was performed (Fig 1). that revealed the compensatory hypertrophy of the left hepatic lobe with the dimension of 90/200/192 mm, containing in the hepatic segment IV a cystic mass with septums inside about 103/101/108 mm and bounded by a thin wall that contents fluid inside, irresponsive to the contrast. The mass comes into contact with the following structure without signs of invasion: anterior with horizontal portion of the stomach, posterior with the cephalic part of the pancreas and on the sides with the small bowel and the colon.

The mass makes compression on the structures of the hepatic peduncle with the dilatation of the intrahepatic ducts up to 6 mm. Mass of soft-tissue with calcifications, apparently scar tissue about 42/36/20 mm developed between diaphragm and the edge of the side of the liver. Fluid between the rectum and the uterus of 53 mm, intestinal malrotation- common mesentery.

The classic surgical intervention is decided, a midline incision was performed, with the revealing of a hepatic cyst in the segment IV. We performed the inactivation on the presumed hidatid cyst. The cyst wall was opened. The hepatic hidatid cyst is infirmed and the new diagnosis was serous hepatic cyst with biliary tract fistula. We practiced partial removal of the cystic wall with the drainage of the residual cavity. On the 4th day after the intervention we injected a contrast material in the residual cavity and we found a cavity of 50/40 mm, the substance opacified as well the intrahepatic biliary ducts, the biliary main path, and the duodenum. On the 5th and the 12th day post intervention we tried to perform ERCP with sfincterotomy without success because of a modified anatomical variant of the duodenal papilla with low implantation on the rear face of the duodenum.

The result of the anatomical pathological examination has revealed a cystic mucinous neoplasm with low-grade dysplasia (cystadenoma of the liver).

Hepatic mucinous cystadenoma of the left liver

Fig 1. The cystic mass with septums inside about 103/101/108 mm and bounded by a thin wall that contents fluid inside, irresponsive to the contrast

A Cholangio-MRI examination was performed (Fig 2). At the level of the left hepatic lobe in segment IV B a cystic mass of 52/61,5/77 mm with the drain tube inside. The mass compressed the left hepatic duct. The left intrahepatic biliary duct had the diameter of 4,6 mm, the

main biliary path above and intrapancreatic diameter of 7 mm with a implantation in the medial wall of the duodenum and at the hepatic peduncle the diameter of 9,5 mm.

Fig 2. The cystic mass of 52/61,5/77 mm.

The flow of the biliary fistula decreased in stages up to minimize with the suppression of the guard drain tube to 13 days post operator with discharging the patient the 14th day post intervention. We inject contrast material on the 30th day post intervention with the suppression of the drain tube from the cavity and decided the oncological

dispensarition of the patient. The evolution of 3 months was one favorable, without other imaging and pathological changes in the para-clinical exams.

Discussions

Cystadenoma of the liver is a rare benign neoplasm with an intrahepatic ingrowth, with a representation of only 5 % of the hepatic cystic lesions [1,2]. World Organization of Health defines hepatic cystic mucinous neoplasm as a cystic neoplasm with epithelioid origin, usually without communication with the biliary ducts, made out of cuboidal or columnar epithelium, with mucin production and ovarian-like stroma. These masses are usually large multilocular cysts [3]. Hepatic cystic mucinous neoplasm is considered a pre-malignant, and only the anatomical pathological examination can make all the difference between cystadenoma and cystadenocarcinoma. The presence of benign epithelium in cases of adenocarcinoma reveals the origin of their initial state, the cystadenoma [4]. The biochemical tests are in most cases normal, the alkaline phosphatase and Bilirubin can be modified in the case in which the mass creates compression on the biliary ducts. As regards the tumor markers CA 19-9, they can have the value slightly raised; instead alpha-fetoprotein and Carcinoembryonic antigen are within normal limits. This pathology is frequently encountered in female patients, with an average age of 50 years, the most common clinical manifestation being epigastric pain [5].

The surgical intervention is the treatment proposed in the majority of cases, within the oncological limits of resection. The evolution of patients post intervention in general is favorable and rate of malignization is low [6].

In this case, the patient's surgical antecedents (right hepatectomy) have made the resection in oncological limits impossible, the only option being the oncological dispensarisation and periodic biochemical and imaging monitoring.

Conclusions

The clinical presentations of the hidatid hepatic cyst and hepatic cystadenoma may be similar as well as the imaging scans, such as ultrasonography, computer tomography, magnetic resonance, imaging may not establish a diagnosis of certainty.

Thus, a tumoral mass should be considered as suspect until the arrival of the histo-pathological diagnosis.

Close follow up of the patient in our medical unit and in oncology department is the best option that could provide good results on long term in this case.

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Patient consent: The patient consent was obtained.

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