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CENTRAL HEPATECTOMY FOR BILIARY CYSTADENOMA: PARENCHYMA-SPARING APPROACH FOR BENIGN LESIONS

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CENTRAL HEPATECTOMY FOR BILIARY CYSTADENOMA: PARENCHYMA-SPARING APPROACH FOR BENIGN LESIONS

Hepatectomia central para cistadenoma biliar: preservação de parênquima em lesões benignas

INTRODUCTION

Central hepatectomy (CH) is also known as mesohepatectomy, central hepatic resection, middle hepatectomy, middle hepatic lobectomy, and central bisectionectomy. The putative risks of it compared to traditional major liver resections include a longer procedure time, greater intraoperative blood loss, higher risk of biliary and vascular complications, all mainly attributed to the proximity to hilar structures and the presence of two significant resection planes instead of a single one. Despite those concerns, this case highlighted that CH is safe and can be accomplished without significant morbidity. No significant differences for postoperative morbidity and mortality between CH and extend hepatectomy (EH) were demonstrated by Lee’s systematic review. Additionally, a recent case-matched study from the same author showed no differences in 90-day mortality, biliary leaks and postoperative liver failure. Moreover, this study also showed longer length of stay, higher postoperative bilirubin and longer prothrombine time for patients who underwent extend hepatectomy.

Liver parenchyma sparing aims to decrease the risk of postoperative liver failure, shorten recovering time, and allow re-hepatectomies in patients with high risk of recurrence. In patients with multifocal benign (adenomatosis) or malignant complex cystic tumor who underwent a CH without tumor violation and no major postoperative complication.

CASE REPORT

A 61-year old female patient with history of cholelithiasis, acholic stools, jaundice and pain in the right upper abdominal quadrant had undergone a cholecystectomy and hepatic cyst unroofing by laparotomy in another institution, 30 months ago. Due to the cholestatic symptoms recurrence, she was referred to our center.

Abdominal MRI showed a cystic lesion in segment 4 with septa and thickened walls, and measuring 9.0 cm. The cyst was demonstrated as isosignal on T1 and hyperintense signal on T2. The confluence of left and right bile ducts was compressed by the cyst, which caused moderate bilateral dilatation. The lateral limit of the cyst compressed the left hepatic artery and the left branch of the portal vein, while its lower limit compressed the right portal branch and the right hepatic artery. Other non-cystic lesions were scattered throughout the liver (Figure 1). Laboratory tests showed increased canaliculare enzymes and bilirubins and negative tumor markers. The case was reviewed at a weekly hepatobiliary multidisciplinary conference and the main hypothesis was a recurred biliary cystadenoma. In order to avoid a right trisectionectomy the decision was to perform a parenchymal preserving resection - central hepatectomy.

During surgery, was confirmed the close relationship of the cyst and the hilar plate. Intraoperative ultrasound showed compression but not invasion of the hilar plate. The liver inflow was controlled with ultrasonic dissector and bipolar electrocoagulation, as demonstrated in Figures 2 and 3. Parenchyma transection was carried out with intermittent pedicle clamping (Pringle’s maneuver). No blood transfusion was necessary. The postoperative course was only marked by a low volume biliary fistula conservatively managed with cavity drain placed during surgery (grade I – Dindo & Clavien classification). She was discharged on 8th postoperative day. Pathologic examination revealed a biliary cystadenoma presenting low-grade neoplasia with free margins. After 18 months of follow-up, the patient is doing well without either symptomatic or radiological recurrence (Figure 4).

DISCUSSION

CH is also known as mesohepatectomy, central hepatic resection, middle hepatectomy, middle hepatic lobectomy, and central bisectionectomy. The putative risks of it compared to traditional major liver resections include a longer procedure time, greater intraoperative blood loss, higher risk of biliary and vascular complications, all mainly attributed to the proximity to hilar structures and the presence of two significant resection planes instead of a single one. Despite those concerns, this case highlighted that CH is safe and can be accomplished without significant morbidity. No significant differences for postoperative morbidity and mortality between CH and extend hepatectomy were demonstrated by Lee’s systematic review. Additionally, a recent case-matched study from the same author showed no differences in 90-day mortality, biliary leaks and postoperative liver failure. Moreover, this study also showed longer length of stay, higher postoperative bilirubin and longer prothrombine time for patients who underwent extend hepatectomy.

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Eighteen months postoperative computerized tomography: A and B) showing compensatory hypertrophy without any recurrence or biliary dilatation

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