Machado MAC, Makdissi FF, Surjan RCT, Abdalla RZ. First robotic-assisted laparoscopic liver resection in Latin America. Arq Gastroenterol. 2009;46(1): 78-80.

ABSTRACT - The surgical robotic system is superior to traditional laparoscopy in regards to 3-dimensional images and better instrumentations. Robotic surgery for hepatic resection has not yet been extensively reported. The aim of this paper is to report the first known case of liver resection with use of a computer-assisted, or robotic, surgical device in Latin America. A 72-year-old male with cryptogenic liver cirrhosis and hepatocellular carcinoma was referred for surgical treatment. Preoperative clinical evaluation and laboratory data disclosed a Child-Pugh class A patient. Magnetic resonance imaging showed a 2.2 cm tumor in segment 5. Liver size was decreased and there were signs of portal hypertension, such as splenomegaly and enlarged portal vein collaterals. Preoperative upper digestive endoscopy disclosed esophageal varices. Five trocars were used. Liver transection was achieved with harmonic scalpel and bipolar forceps. Hemostasis of raw surface areas was accomplished with interrupted stitches. Operative time was 120 minutes. Blood loss was minimal and the patient did not receive transfusion. The recovery was uneventful and patient was discharged on the 3rd postoperative day without ascites formation. Laparoscopic hepatic resection can safely be performed. The laparoscopic approach may enable liver resection in patients with cirrhosis and evidence of liver failure that would contraindicate open surgery probably because it precludes the transection of major abdominal collaterals. The Da Vinci robotic system allowed for technical refinements of laparoscopic liver resection due to 3-dimensional visualization of the operative field and instruments with wrist-type end-effectors.

HEADINGS – Hepatectomy. Liver diseases, surgery. Carcinoma, hepatocellular, surgery. Robotics. Laparoscopy.

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Recebido em 12/12/2008.
Aprovado em 15/1/2009.