

AB016. Robotic assisted left lateral hepatectomy with indocyanine green guidance

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Background: Minimally invasive surgery has become the gold standard in many areas of surgery, including liver resections. Robotic assisted resection of hepatocellular carcinoma (HCC) provides oncological outcomes which are comparable to other approaches. The demanding nature of liver resection is the ideal application of robotic technology, which includes 3D visualisation, improved range of motion and enhanced surgeon ergonomics. Recently, indocyanine green (ICG) has been used to guide resection of liver malignancies. We present the case of a 55-year-old gentleman who developed multifocal HCC in the left lobe of liver, on a background of hepatitis C induced liver cirrhosis.

Methods: A Veress needle was used to insufflate the abdomen. One 12-mm camera port and three 8-mm

transverse ports were introduced, and the robotic system was docked. Adhesions between the stomach and posterior liver surface were taken down. ICG was administered and good perfusion to remnant liver was observed with no uptake in visualized tumour. Intraoperative ultrasound revealed no other worrying lesion. Liver parenchyma was then sequentially divided to the left of the falciform ligament. The specimen was retrieved via Pfannenstiel incision.

Results: The patient had an uncomplicated recovery and was discharged on post-operative day 7. Histology revealed completely excised multifocal HCC, final staging pT3NXRO.

Conclusions: The use of the Da Vinci Xi system can achieve satisfactory outcomes in complex liver resection. Additionally, ICG facilitates real time visual assessment of tumour margins, which aids complete oncological resection. These tools are valuable and contemporary additions to the minimally invasive hepatobiliary surgeon's arsenal.

Keywords: Robotic; hepatectomy; indocyanine; hepatocellular; carcinoma

doi: 10.21037/map.2020.AB016

Cite this abstract as: Neary C, Bolger J, Conneely J. Robotic assisted left lateral hepatectomy with indocyanine green guidance. *Mesentery Peritoneum* 2020;4:AB016.