VIDEO

Pure laparoscopic right hepatectomy by anterior approach with hanging maneuver for large intrahepatic cholangiocarcinoma

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Abstract

Background Pure laparoscopic hemihepatectomy is still a challenging procedure. However, it is a minimally invasive liver surgery that leads to rapid recovery [1–5]. Intrahepatic cholangiocarcinoma has a poor prognosis, especially when it occurs with lymph node metastasis [6–8]. We recently had a patient who underwent a pure laparoscopic right hepatectomy and lymph nodes dissection for a large intrahepatic cholangiocarcinoma in the right liver by an anterior approach with hanging maneuver.

Methods Because the tumor was 77 × 50 mm in diameter, mobilization was performed after the devascularization of the right liver. After the division of the right hepatic artery and the right portal vein, short hepatic veins were sealed and divided with a bipolar vessel sealer from the anterior face of the vena cava, followed by the placement of a tape between the liver and the vena cava for hanging. By means of the hanging maneuver, parenchymal transection was performed with minimal blood loss, and the cut surface of the liver became plane.

Results The operation time was 357 min, and the blood loss was 66 ml. A right hepatectomy and complete lymph node dissection adjacent to the hepatoduodenal ligament were performed successfully with a purely laparoscopic

procedure. The postoperative hospital stay was 10 days. The final diagnosis of the intrahepatic cholangiocarcinoma with distant lymph node metastasis in the hepatoduodenal ligament was pT1N1M0 stage IIIb (International Union Against Cancer criteria).

Conclusions The laparoscopic procedure enabled the patient to have an early discharge and adjuvant chemotherapy of gemcitabine with S1 initiated immediately after discharge. We present a video of the described procedure.

Keywords Endoscopy · Hepatic cancer · Surgical technique

Disclosures Masahiro Takahashi, Go Wakabayashi, Hiroyuki Nitta, Daiki Takeda, Yasushi Hasegawa, Takeshi Takahara, and Naoko Ito have no conflicts of interest or financial ties to disclose.

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