



Laparoscopic Isolated Total Caudate Lobectomy for Hepatocellular Carcinoma Located in the Paracaval Portion of the Cirrhotic Liver

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ABSTRACT

Background. Despite the widespread use of laparoscopic hepatectomies in past decades, laparoscopic isolated total caudate lobectomy for hepatocellular carcinoma (HCC) remains challenging,^{1,2} especially for patients with cirrhosis. Moreover, a laparoscopic isolated total caudate lobectomy for HCC originating in the paracaval portion of the caudate lobe is very rare. We herein present a video showing laparoscopic total caudate lobectomy for a cirrhotic patient with HCC located in the paracaval portion of the caudate lobe.

Methods. A 58-year-old woman who suffered from hepatitis C virus-related cirrhosis was admitted to our institution. The preoperative computed tomography showed a 2.5 × 2.0 cm liver mass located in segment I that was very close to the right hepatic pedicle. Although her liver function was Child–Pugh A, the indocyanine green (ICG)-15 test was high at 10.9%. Right hepatectomy plus caudate lobectomy was not adopted because of the severe cirrhosis and the elevated ICG-15. Thus, laparoscopic isolated total caudate lobectomy was contemplated.

Results. The patient was placed in the supine position. After full mobilization, the caudate lobe was exposed. The third porta of the liver was then dissected and the short hepatic veins were controlled with clips and LigaSure. The dissection was finished when the whole third porta of the liver

was freed. Subsequently, the portal branches to the caudate lobe were ligated and cut. The combination between the left- and right-sided laparoscopic approaches was used to transect liver parenchyma. The superficial parenchyma was divided using an harmonic scalpel, while the deeper tissue was divided using a Cavitron ultrasonic aspirator (CUSA). The Pringle maneuver was used intermittently during the parenchymal transection as necessary. In the left-sided approach, the caudate lobe was resected along the left and middle hepatic vein toward the right side, to expose the dorsal semicircle of the right hepatic vein. In the right-sided approach, the resection started from the right border of the process portion to the root of the right hepatic vein in the cranial direction. Finally, the whole caudate lobe was resected and the three main hepatic veins were exposed on the cutting plane. The specimen was removed from suprapubic incision. The operative time was 300 min and the total Pringle time was 50 min. The postoperative course was uneventful.

Conclusions. A laparoscopic isolated total caudate lobectomy for HCC located in the paracaval portion of the cirrhotic liver seems to be feasible and safe in selected patients.

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