right hepatectomy and 1 in left hepatectomy). The overall complication rate was 44.4% according to the Modified Clavien System. However, the grade III complication including bile leakage and incisional hernia occurred in only four patients (14.8%). The median days of hospitalization were 9 days (range: 5-46). Twelve patients with hepatocellular carcinoma did not develop any recurrence after liver resection during 9 months of median follow up (range: 1-24).

**Conclusions:** From our experiences, robotic liver resection seems to be a feasible and safe procedure. We think that the robotic surgery can be the new technical option for minimally invasive liver surgery.

VIII-5

# Laparoscopic Right Anterior Secionectomy by the Glissonian Approach

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**Introduction:** A right anterior sectionectomy is to resect segments 5 and 8 of the liver. This is a technically demanding operation because it requires two transection planes. Until now, the laparoscopic approach for this operative procedure has been rarely attempted. We report here on 2 cases of a totally laparoscopic anterior sectionectomy using the Glissonian approach in patients with hepatocellular carcinoma.

#### Patients and Methods

Case 1: A 54-year-old female was admitted for a hepatic mass that was incidentally found on a health screening test. She was a hepatitis B carrier. The laboratory studies show a normal level of alpha-fetoprotein (AFP) level. The preoperative liver function was Child-Pugh class A and the retention rate, at 15 minutes after an intravenous (i.v.) injection of indocyanine green (ICG R15), was 4.8%. Abdominal computed tomography (CT) revealed a 2.7 cm sized mass that was located in segment 5-8.

Case 2: A 64-year-old female was admitted for a hepatic mass that was incidentally detected by screening ultrasonograpy in a community hospital. She was

a hepatitis C carrier. The level of AFP level was 7.9 IUml. The preoperative liver function was Child-Pugh class A and ICG R15 was 12.6%. CT scan revealed a 3.0 cm sized mass that was located in segment 5-8 and 1.0 cm sized mass that was located in segment 8. For both patients, preoperative diagnosis was HCC and laparoscopic anterior sectionectomy was performed.

**Results:** Operative times were 500 and 550 minutes respectively. Estimated blood loss during operations was about 450 ml and 550 ml respectively and transfusion was not necessary in both patients. The patients were discharged on the 8th and 9th postoperative days respectively without any complication. The postoperative pathology confirmed a 2.0×2.3×2.2 cm sized HCC.

**Conclusion:** These cases show the feasibility of performing laparoscopic anatomical anterior section ectomy in selected patients.

VIII-6

# Video for the Hepatectomy using Glissonian Pedicle Transection Method

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Background: The unique technique of Glissonean pedicle transection was reported that it had excellent surgical outcomes in patients with hepatocellular carcinoma and metastatic liver cancer. The portal triad continues from the hepatoduodenal ligament to the intrahepatic portion as the Glissonean pedicle. The artery, portal vein and bile duct, together with connective tissue, are sheathed by the peritoneum to form a fibroid bundle. The entire length of the primary branches of the Glissonean pedicle and the origin of the secondary branches are located outside the liver and the trunks of the secondary and more peripheral branches run inside the liver. The ramification pattern of the tertiary branches which branch out from each secondary branch is different from patient to patient. The liver is nourished by the secondary branches of the Glissonean pedicle. Each secondary

# The 34<sup>th</sup> Congress of The Korean Association of Hepato-Biliary-Pancreatic Surgery

branch feeds one segment. The liver can thus be separated into three segments and an additional caudate area. In this video presentation, we'd like to describe the hepatic resection using Glissonean pedicle transection method. First patient was a 52 year old male who had been diagnosed with hepatitis B associated HCC, located in segment 6. Second patient was a 58 year old female who had been diagnosed with hepatitis B associated HCC, located in segment 3. Third patient was a 52 year old male who had been diagnosed with hepatient was a 52 year old male who had been diagnosed.

nosed with metastatic liver cancer from colon, located in segment 6. Fourth patient was a 51 year old female who had been diagnosed with metastatic liver cancer from colon, located in segment 3. There were no transfusion. Every patient resumed their oral intake on postoperative day 2. They were discharged without any serious complications on postoperative day 13. The hepatectomy using Glissonean pedicle transection method are a safe and useful surgical application of various anatomical resections.