Oral Presentation VI

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One Incision Laparoscopic Cholecystectomy: Comparison between Glove Techique and SILS

Presbyterian Medical Center Jeonju, Korea

Woo-Young Kim

Reserch Purpose: As a bridge between traditional laparoscopic surgery and NOTES, the recent focus has been on the development of Umbilical Single-Incision Laparoscopic Cholecystectomy (USILC) to further minimize the invasiveness of laparoscopic surgery by reducing the number of incisions. Single incision laparoscopic surgery was described as early as 1992 by Pelosi et who performed a single-puncture laparoscopic appendectomy. In 1997, by Navarra et al who performed a laparoscopic cholecystectomy via two transubilical trocars and three transabdominal gallbladder stay sutures. In June 2010, we described the initial experience of the 22 cases of USILC with comparison to the 34 cases of the three ports laparoscopic cholecystectomy (TPLC). This article showed twofold operation time of the surgery between the TPLC and USILC namely 136 min to 68 min. In NOV 2010, we described another article of 50 cases which teaches us some lessons in USILC such as needing careful dissection to avoid gallbladder rupture during surgery, case selection for chronic calculous cholecystitis and gallbladder polyps ,and learning curve. Since Nov 2010. National health Insurance co. covers the costs for SILS in single incision laparoscopic surgery. So we planned comparative study for USILC using the glove and SILS.

Materials and Methods: Between Nov 2010 and Feb 2011, we enrolled 42 cases of the chronic calculous cholecystitis and polyps for USILC using glove technique (group 1) which used a 6 and half size glove, Alexis and three 5mm trocars and SILS (group 2) alternatively. We observed age and sex, body mass index (BMI), operation time, rupture rate during surgery, complication, conversion rate and postop hopsital stay etc.

Results: Average age is 51.5 in group 1 and 45 in gorup 2. Male and female ratio is 8:13 in both group respectively. BMI is 25.4 in group 1 and 25.7 in group 2. Mean op time is 88.8 min in group 1 and 92.1 min in group 2. Gallbladder rupture rate during surgery is 3/21 in group 1 and 4/21 in group 2. Conversion to 3 port in group 1 was noted due to bleeding. Complication was noted in group 2 such as one wound infection and two skin burns. Hospital stay is 4.4 days in group 1 and 4.9 days group 2.

Conclusions: There is no difference between two groups.

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Single-incision Laparoscopic Surgery (SILS) for Liver: Preliminary Report

Division of HBP Surgery, Department of Surgery, Korea University College of Medicine, Korea

Wan-Bae Kim, Sae-Byeol Choi, Hyung-Joon Han, Dong-Sik Kim, Tae-Jin Song, Sung-Ock Suh, Young-Chul Kim, Sang-Yong Choi

Background: Since the first reported use of laparoscopic liver surgery, it has been increasingly used. Recently, in an attempt to decrease abdominal wall trauma and visible scar, single-incision laparoscopic surgery (SILS) for liver was developed with the aim of reducing the invasiveness of traditional laparoscopy.

Patients and Methods: In this study, 5 patients underwent SILS liver resection in 2010. Three of these patients had single HCC (S5, S6) and two of these patients had multiple colorectal cancer liver metastases (S2, S3, S4, S6). We used a small wound retractor, a surgical glove, a 12 mm trocar and two 5 mm trocar as the “Homemade single-port”. Standard laparoscopic instrument were used except “Homemade single-port".

Result: Mean operation time is 176 min (range 135-325 min) and portal clamping was not used for all patients. Liver resection was accomplished with Harmonic scalpel and an endoscopic stapling device. One patient who had multiple liver metastases (S2, S4) required blood transfusion. The postoperative courses were uneventful and mean hospital stay was 4.2 days (range 3-6 days).

Conclusion: We think that single-incision laparoscopic liver resection is technically feasible and safe procedure and it can be performed with conventional