Minimally Invasive Approach for Combined Cholecystectomy and Total Hysterectomy with LigaSure

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Wide applications of operative laparoscopy can be carried out as combined procedures for multipl pathologies. In single time anesthesia, these combined minimally invasive procedures gives the advantages of lesser pain and morbidity, faster recovery and shorter hospital stay.

We report a 58 years old woman treated for uterine myomas and cholelithiasis. The patient underwent laparoscopic total hysterectomy, bilateral salpingo-oopherectomy and laparoscopic cholecystectomy in single session. Procedures were performed with cross-specialty cooperation between a gynecologist and a general surgeon and were completed laparoscopically without intraoperative or postoperative complications. And the patient was discharged 24 hours after the operation.

Key Words: Laparoscopic cholecystectomy, Laparoscopic total hysterectomy, Combined procedures, Liga sure

Gynecol Obstet Reprod Med;16:1 (59-61)

Introduction

Multidisciplinary laparoscopic approaches can offer suitable, effective and safe treatments.These combined minimally invasive procedures gives the benefits of single time anesthesia for multiple pathologies.[1]

Hysterectomy is one of the most frequently performed surgical procedure in the world.[2] Comparing laparoscopic hysterectomy procedures with abdominal hysterectomy the advantages of laparoscopic approach are lesser pain, lower blood losses and minimal risk of complications.[2,3] Also Laparoscopic cholecystectomy that was first performed in France by Mouret in 1987 have various advantages including improved visualization, faster recovery and decreased blood loss.[4]

In this paper we presented a case that underwent laparoscopic total hysterectomy, salpingo-oopherectomy combined with laparoscopic cholecystectomy and discussed the advantages of using LigaSure in laparoscopically combined procedures.

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Submitted for Publication: *11.10.2009*
Accepted for Publication: *05.03.2010*

Case Report

A 58-year-old woman gravida 2 para 2 presented with complaints of postmenopausal vaginal bleeding and upper abdominal pain associated with biliary vomit. Routine examinations including blood tests, electrocardiogram and chest radiographs were normal. Transvaginal ultrasonographic examination showed an intraligamenter leiomyoma at the cervical site of the uterus sized 55x45 mm and an intramural degenerated leiomyoma at the fundal site of the uterus sized 50x47mm. The pathology of endometrial biopsy with pipel revealed endometrial hyperplasia without atypia.

An abdominal ultrasonography examination suggested a hydropic gallbaldder with occluding gallstones measuring 1,5-2 cm in diameter. After obtaining informed consent from the patient, we planned to do simultaneous laparoscopic total hysterectomy, bilateral salpingo-oopherectomy and laparoscopic cholecystectomy.

Operative techniques:

After induction of general anesthesia, first we performed laparoscopic total hysterectomy and bilateral salpingo-oopherectomy. The patient was in modified lithotomy position with hips extended in a 40° angle Trendelenburg position. Shoulder bolsters prevent slippage up the table and the arms were padded and tucked by the side. A Foley catheter was inserted to provide bladder drainage throughout the operation. After the creation of pneumoperitoneum a 10 mm operative video laparoscope (30-degree angle with longer optics,

Olimpus OYV-S5) was inserted umbilically. Then three additional trocars were placed. The laparoscopic hysterectomy was performed as described before by Köhler et al.[5] However there were some differences in our technique. We did not use uterine manipulator. And we used LigaSure V 10 mm (Valley lab) for sealing the uterine vessels and infundibulopelvic ligaments (Figure 1). The ureters were visualised transperitoneally at the pelvic brim and in the pelvic side wall before the infundibulopelvic ligaments were coagulated with Ligasure Atlas.The uterine ligaments and the vascular pedicles were ligated and cut with LigaSure. The uterovesical peritoneal reflection was incised and the bladder was dissected off its utero-vaginal attachment. The broad ligament was trimmed to isolate the uterine vessels before they were coagulated with ligasure diathermy and cut. Colpotomy and division of uterosacralcardinal ligament complexes were carried out laparoscopically using unipolar point diathermy needle. After the uterus was removed vaginally, closure of the vault was carried out laparoscopically. A combination of interrupted sutures with extracorporal knot using monofilament absorbable sutures completed the operation. The operation time was 65 minutes for laparoscopic total hysterectomy.

After three additional trocars were placed to the epigastrium, midclavicular and to the anterior axillary places, cholecystectomy was started with the dissection of Calot's triangle. The cystic duct and artery were identified, secured with clips and sectioned. Cystic artery was sealed with 10 mm LigaSure device. The fine dissections of the gallbladder was systematically addressed with bipolar electric scissors. The other coagulation and sealing procedures was performed with LigaSure vessel sealing system from the infundibule to the fundus. The specimen was excorporated through the epigastric 10 mm port The operation time was 15 minutes for laparoscopic cholecystectomy. Views from laparoscopic cholecystectomy were shown in figure 2.

The patient was discharged 24 hours after the operation without any intraoperative or postoperative complications

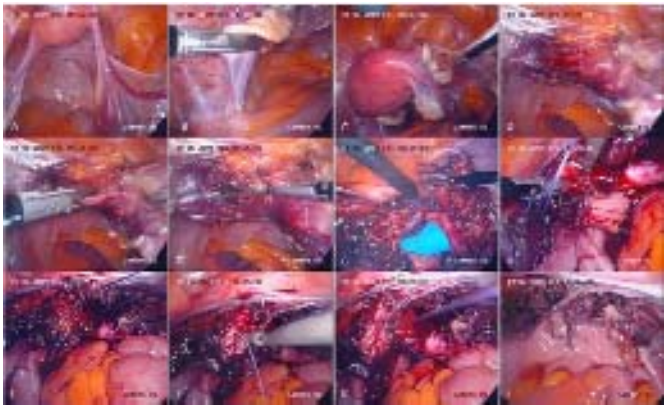

Figure 1: Views from laparoscopic total hysterectomy

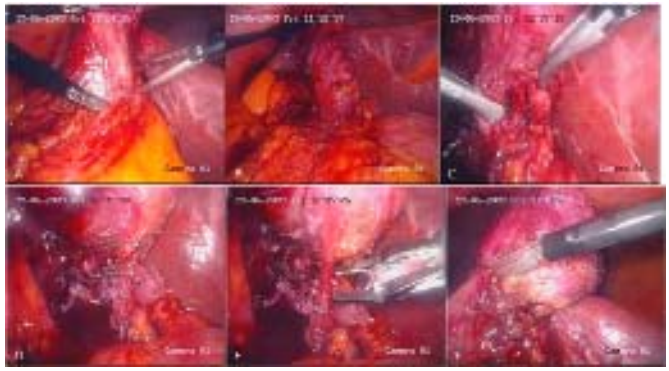

Figure 2: Views from laparoscopic cholecystectomy

Discussion

If the laparoscopic operation procedures are performed at the same time not only does the patients have the benefits of minimal access surgery but also have single hospital admission, preoperative evaluation and anesthesia exposure.[1]

There are some reported papers for combined laparoscopic hysterectomy and cholecystectomy procedures.[1,4,6,7] In our case, the important difference was that we used LigaSure V 10 mm (Valley lab) for sealing the uterine vessels and infundibulopelvic ligaments and in cholecystectomy. Also in laparoscopic hysterectomy we did not use uterine manipulator.

The LigaSure is a safe, effective and fast procedure with no significant major and minor complications and is used in various minimally invasive surgical procedures as in laparosopic splenectomy, cholecystecomy and hysterectomy.[8-11] Patients' recovery is fast as both discharged on the next postoperative day. Gol et al [10] showed advantages of this technique in their study. In another study Dubuc-Lissoir [12] reported the benefits of LigaSure in gynecologic oncologic patients.

To conclude, the possibility in selected cases endoscopic combined procedures bring important advantages such as a decrease in morbidity, mortality, hospital stay, elimination of future hospitalizations and repeated anesthetic exposures, a reduction in the time lost from work and better acceptance. Our patient had the benefits of having undergone surgeries for two different coexisting pathologies with no perioperative morbidity. Apart from the benefit to the patient it also appears to be cost effective both to the patients and to the hospital services. Also LigaSure for sealing the vessels in laparoscopic hysterectomy and in laparoscopic cholecystectomy seem to be a time saving technique and can be safely used in a single session as presented in our paper.

LigaSure ile Kombine Kolesistektomi ve Total Histerektomi için Minimal İnvaziv Yaklaşım

Değişik laparoskopik girişimler multipl patolojiler için birlikte

yapılabilir. Bu minimal invaziv girişimlerin tek sefer anestezi altında yapılması, daha az ağrı, azalmış morbidite, çabuk iyileşme ve kısa süreli hastane yatışı gibi avantajlar sağlar.

Bu yazımızda uterin myom ve kolelitiazis için tedavi olan bir hastayı sunduk. Bu hastamıza tek seansta laparoskopik total histerektomi, bilateral salpingooferektomi ve laparoskopik kolesistektomi uyguladık. Operasyon jinekolog ve genel cerrah ile birlikte laparoskopik olarak intraoperatif or postoperatif komplikasyon olmadan tamamlandı. Ve hasta operasyondan 24 saat sonra taburcu edildi.

Anahtar Kelimeler: Laparoskopik kolesistektomi, Laparoskopik total histerektomi, Kombine prosedürler, LigaSure

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