

A FEASIBLE LAPAROSCOPIC SURGERY TECHNIQUE FOR COMPLEX ADNEXAL TUMORS

Chun-Chieh Chia*, Soon-Cen Huang

Department of Obstetrics and Gynecology, Chi Mei Medical Center, Liou-Ying Campus, Tainan, Taiwan.

In the 1950s, development of the first endoscopic technique for tubal sterilization was established. After decades, operative laparoscopy had been applied in gynecology for the treatment of mild or moderate degrees of endometriosis and pelvic adhesion. Further gynecologic adnexal and uterine corpus surgeries were then established. Now we would like to introduce a simple and feasible laparoscopic surgical technique for complex adnexa such as dermoid tumors, which may cause irritating peritonitis after spreading.

Five women who were diagnosed with complex adnexal tumor including dermoid cysts and mucinous cysts were enrolled in this study. All the cystic tumors were more than 6 cm in size, which could disturb the operating field during manipulation including enucleation, or cystectomy. In order to have an adequate and comfortable operating field, a new procedure was proposed. First, we found a site, which was the most distal from the tumor base. Second, we used unipolar scissors to cauterize a tiny hole on this point for the intracystic fluid drainage. Third, we used 10-mm hemoclips to conceal the ruptured hole before any further manipulation of the tumor (Figure). Finally, we removed the specimen or tumor mass by the endobag through the 12-mm trocar site, and irrigated it intraperitoneally with warm saline until clear and clean.

All the operations ended within 90 minutes, with an average operation time of 50 minutes. The average amount of warm saline needed for irrigation was 1000 mL. All the patients were well after operation.

Laparoscopic surgery is getting popular in the gynecologic area even for ovarian borderline malignancies. The prevention of tumor spread and seeding during manipulation of the tumor became an important topic and varied types of instruments and techniques

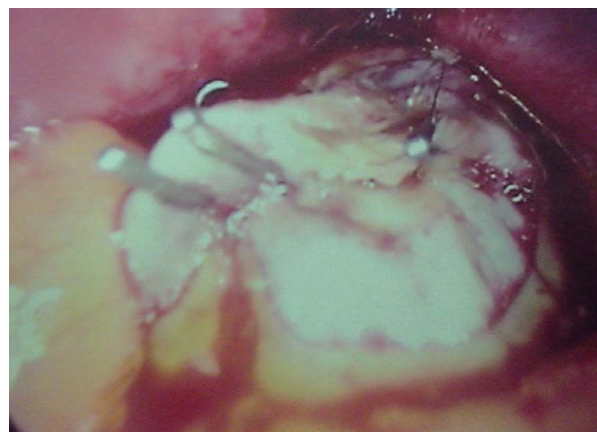


Figure. We used 10-mm hemoclips to seal up the ruptured hole before any further manipulation of the tumor.

were reported. Besides, the methods for removal of the complex and big adnexal tumor through a limited trocar site were also considered.

Kochli et al [1] developed an instrument to facilitate extraction of an endobag during laparoscopy without the need for a conventional minilaparotomy. The endobag extractor has three removable diverging blades that symmetrically enlarge the operative canal in the abdominal wall if spread after sharp extension of the skin incision. The full endobag can be drawn through the canal without the risk of endobag rupture because the size of the canal can be individualized, by building a funnel. Kuhn et al [2] proposed that using adequate endoscopic resection and removal techniques, suspicious ovarian tumors under 10 cm in diameter could be operated on endoscopically with a low risk of tumor rupture.

Whatever the technique to remove the specimens, the tract chosen should be adapted to the size of the largest diameter of the specimen. When larger in size, the tumor may need to be reduced in diameter intra-abdominally either by cutting it into pieces or being peeled down into a "long shape" tissue piece before extraction. But for the complex adnexal tumor, instead of cutting it into pieces before extraction, we should put

*Correspondence to: Dr Chun-Chieh Chia, Department of Obstetrics and Gynecology, Chi Mei Medical Center, Liou-Ying Campus, 201, Tai-Kang Road, Liou-Ying 736, Tainan, Taiwan.
E-mail: chia007@iris.seed.net.tw
Accepted: October 9, 2006

it into a bag such as endobag or sterile gloves in order to prevent the outspread of the internal contents. Sometimes, the tumor is so big that it limits our working field, or the “bag” is too small for this tumor, artificially rupturing the tumor, in which case suctioning out of the contents is needed. Seal-up of the ruptured tumor is acceptable and suggested during manipulation.

In order to have a comfortable working field and avoid the difficult techniques of laparoscopic intra-abdominal suturing for outspread prevention, we found a feasible method to seal-up the ruptured hole with 10-mm hemoclips through the 12-mm trocar site. It is

easy to perform, needs a lesser learning curve, and then may also save operation time.

References

1. Kochli OR, Schnegg MP, Muller DJ, Surbek DV. Endobag extractor to remove masses during laparoscopy. *Obstet Gynecol* 2000;95:304–5.
2. Kuhn T, Mangold R, Santjohanser C, Heuser T, Hock S, Zippel H, Kreienberg R. Complete resection of adnexal masses with endobag extraction: the risk of involuntary tumour rupture. *Gynaecol Endoscopy* 2000;9:59–63.