CASE REPORT JSLS

Ovarioscopy and Laparoscopic Removal of a Large Right Adnexal Cyst

B. R. Love, MD, G. Murray, MD

ABSTRACT

The combination of ovarioscopy and laparoscopy can be used to remove a large adnexal cyst.

Key Words: Ovarioscopy, Adnexal cyst.

INTRODUCTION

For several decades, gynecologist have used the minimally invasive technique of operative laparoscopy to surgically treat benign ovarian cysts.[1–4] In 1987, Kurt Semm, MD, outlined the technique of pelviscopic puncture and excision of ovarian cysts in his *Operative Manual for Endoscopic Abdominal Surgery*.[5] The technique of ovarioscopy was then used as treatment for ovarian cysts and visualizing the contents of ovarian masses. The term "ovarioscopy" was coined by Brosens in 1994 when he used this technique to visualize endometriotic cysts.[6] In 1995, the current author gave a video presentation titled *Ovariscopy, Laparoscopy, and Minilaparotomy for Removal of Bilateral Dermoid Cyst* at the Annual AAGL meeting in Orlando, Florida.[7] In 2005, Sagiv et al[8] detailed the laparoscopic management of extremely large ovarian cysts. Sagiv treated 21 patients with large ovarian masses that occasionally extended beyond the umbilicus. These masses were free of septations. Tumor markers were normal. The author concluded that "with proper patient selection, the size of an ovarian cyst is not necessarily a contraindication for laparoscopic surgery."[8] In this case study, we utilized ovarioscopy and laparoscopy to manage a large benign adnexal mass.

CASE REPORT

Medical History

YS, a 22-year-old, nulligravida, black female, presented to the general surgeon's office with the complaint of severe abdominal pain and abdominal distension over several months duration. On physical examination, she was 5 feet 5 inches tall and her weight was 250 pounds. A hemogram and general chemistries were normal. A CT scan of the abdomen and pelvis showed a large fluid-filled cyst that extended from the pelvis to just below the xiphoid process. The maximum transverse diameter was 21 centimeters.

CT scan identified the mass as arising from the ovary. The mass appeared to be unilocular without septations or excrescences **(Figure 1)**. The patient's cancer antigen (CA125) was 9.6 units/mL. Her CEA was 0.8 nanograms/

Address correspondence to: B. R. Love, Telephone: (731) 285-2100, Fax: (731) 286-1890, E-mail: brlovemd@hotmail.com

DOI: 10.4293/108680810X12674612015067

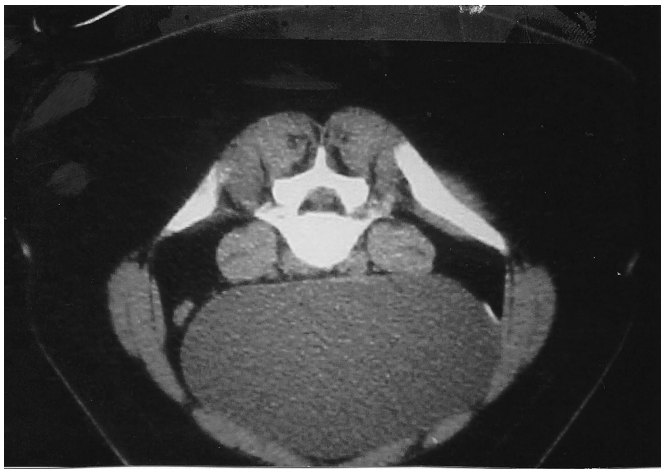

Figure 1. Unilocular mass without septations or excrescences.

Figure 2. Ovarioscopy demonstrating smooth cyst lining with clear cyst fluid.

Figure 3. "Hair roller" technique used to roll empty cyst onto atraumatic grasper.

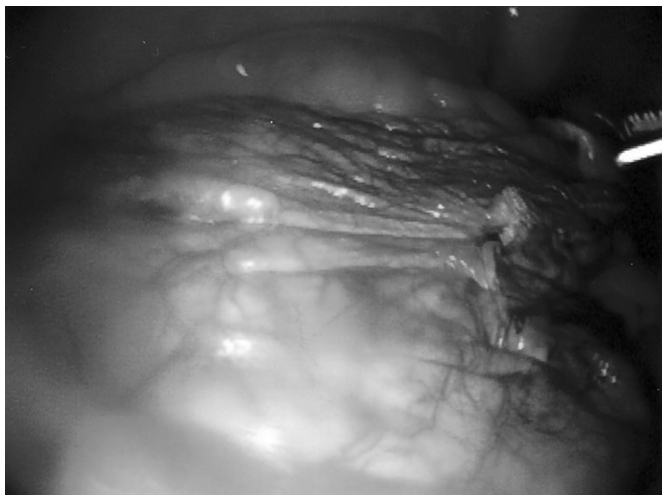

Figure 4. Empty resected cyst lying on the intestine prior to removal.

mL. The CT scan and tumor markers were consistent with benign disease.

Surgical History

The patient was taken to the operating room. General anesthesia was administered, and the patient was placed in the dorso-lithomy position in the Yellow-fin stirrups. Her abdomen was prepped in the standard fashion. Ovarioscopy was then performed. A 5-mm incision was made in the right lower quadrant, and a 5-mm trocar was inserted directly into the adnexal mass. A 5-mm scope was placed through this initial port to visualize the inside of the mass **(Figure 2)**. The walls of the cyst were smooth and the fluid was clear. There were no septations or excrescences inside the cyst. Using the suction-irrigator, 3500 mL of fluid was removed completely deflating the mass. No fluid spilled into the peritoneal cavity. Laparoscopy was then performed. A Veress needle was inserted in the infra-umbilical area to insufflate the abdomen. A 5-mm trocar was inserted, and the exterior of the mass was visualized. A third port was made with a 5-mm trocar in the left lower quadrant under direct video visualization to continue the operative procedure. By using the "hair-roller" technique, the mass was rolled via an atraumatic grasper **(Figure 3)**. The endoGia was used to resect the mass from the ovary **(Figure 4)**. Thereafter, the mass was removed from the abdomen through the left lower quadrant port. There was minimal blood loss with this procedure. The left ovary and tube were normal by laparo-

scopic inspection with normal fimbriae. The residual right ovary and tube were normal.

The entire operation took 60 minutes. The postoperative cytology report from the cyst fluid was negative for malignancy. Additionally, the microscopic pathology report from the cyst was consistent with a benign ovarian cyst lined by ciliated "tubal type epithelium." The patient was released to home the first postoperative day. Her follow-up care was benign.

DISCUSSION

Numerous reports in the gynecologic literature involve the use of either laparoscopy or ovarioscopy in the management of large ovarian masses. This case report may represent the first time in the gynecologic literature that the combined use of both ovarioscopy and laparoscopy were used to evaluate and remove a large adnexal mass. This combined technique deserves further study in carefully selected patients before this approach could be considered to be the standard of care for large benign adnexal masses with normal CT/U/S/MRI and tumor markers. A minimally invasive technique was utilized, enabling the patient to return to normal activities within a few days. Her hospitalization costs were also decreased. The patient expressed complete satisfaction with the cosmetic result of her minimally invasive procedure. Interestingly, the pathology report showed tubal cilia suggesting that this large mass could have been a tubo-ovarian mass. However, at the end of the operation, visual inspection of the right adnexa was consistent with a residual ovary and a normal fallopian tube.

References:

1. Darwish AM, Amin AF, El-Feky MA. Ovarisocopy, a technique to determine the nature of cystic ovarian tumors. *J Am Assoc Gynecol Laparosc*. 2000;7(4):539–544.

2. Mahdavi A, Berker B, Nezhat C, Nezhat F, Nezhat C. Laparoscopic management of ovarian cysts. *Obstet Gynecol Clin North Am*. 2004;31(3):581–592.

3. Bruhat MA, Mage G, Bagory G, et al. Laparoscopic treatment of ovarian cysts, indications, techniques, results. Apropos of 650 cases. *Chirugie*. 1991;117(5–6):390–397.

4. Ueno J, Tomioka ES, Pinotti JA. Transvaginal videopelviscopy, a new technique for assessing pelvic cysts. *J Am Assoc Gynecol Laparosc*. 2000;7(4):535–538.

5. Semm K. Pelviscopic puncture and excision of ovarian cysts. In: Semm K, ed. *Operative Manual for Endoscopic Abdominal Surgery*. 1st ed. Chicago, IL:Year Book Medical Publishers; 1987; 171.

6. Brosens IA, Puttemans PJ, Deprest J. The endoscopic localization of endometrial implants in the chocolate cyst. *Fertil Steril*. 1994;61(6):1034–1038.

7. Love BR, McCorvey R. Ovarioscopy, laparoscoopy and minilaparotomy removal of bilateral dermoid cyst. Video presented at: 24th Annual Meeting of the American Association of Gynecologic Laparoscopists; November 8–12, 1995; Orlando, FL.

8. Sagiv R, Golan A, Giezerman M. Laparoscopoic management of extremely large ovarian cysts. *Obstet Gynecol*. 2005;105(6): 1319–1322.