

Laparoscopic excision of a large ovarian cyst

Iram Rabbani · John S. Wynn · Debbie J. Hickling

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Case report

We present a case of laparoscopic drainage and excision of a large ovarian cyst. A 22-year-old, nulliparous woman presented to a general practitioner with occasional right-sided upper abdominal pain. An abdominal ultrasound was arranged to assess the biliary system. However, the scan identified a huge ovarian cyst filling the entire abdominal cavity from the epigastrium to the pouch of Douglas. An urgent review was arranged at the gynaecology clinic. There was generalized distension of the abdomen, but the margins of the cyst were not palpable. A repeat pelvic ultrasound scan was arranged in the gynaecological ultrasound department to examine the cyst in detail. It appeared simple in nature, with a unilocular fluid-filled cavity. The approximate size was 50×30×13 cm. No solid elements, ascites or renal system dilatation was noted on ultrasound. CA-125(15 iu/ml), CEA (2 ng/ml) and HCG (<5 iu/l) were all normal. After detailed discussion with the patient about the management options, a decision was made to perform laparoscopic drainage and excision of the cyst. The patient was aware of the possibility of oophorectomy and laparotomy if complications arose during the procedure or if it proved impossible to excise the cyst laparoscopically.

The procedure was performed under general anaesthetic in the lithotomy position. A Veres needle was inserted through the umbilicus into the cyst as for routine laparoscopy and 5,800 ml of straw-coloured fluid was drained through the suction apparatus till the fluid stopped draining. The Veres needle was then removed and reinserted at the same point and CO₂ in-sufflation was performed as per routine. A 10-mm trocar was then inserted with ease into the peritoneal cavity. The cyst had completely collapsed and the detailed inspection revealed origin from the right adnexa possibly ovarian in nature, but the right ovary appeared healthy and well preserved. The left ovary also appeared normal. The cyst had expanded in the mesosalpinx and broad ligament and had involved the right tube. Ureters were identified separately on both sides. Two further 5-mm ports were inserted in the suprapubic area on either side of the midline. Right partial salpingectomy and excision of the base of the cyst were performed with bipolar diathermy and laparoscopic scissors. Hemostasis was secured using bipolar diathermy. The cyst was then grasped with lockable laparoscopic forceps inserted through a suprapubic port on the left. The portal entry incision was enlarged by a further 1 cm as the port, forceps and cyst were being removed under direct vision. The cyst was removed piecemeal and both ovaries were preserved. The patient made an uneventful post-operative recovery with minimal use of oral analgesics only and was discharged the next day.

The histology showed a unilocular thin-walled cyst. The cyst wall was composed of fibrous tissue and was lined by tubal-type cuboidal epithelium. No background ovarian tissue was seen. Attached to the cyst wall was membranous tissue comprised of normal fallopian tube. The appearances were suggestive of benign serous cystadenoma. There was no evidence of malignancy.

I. Rabbani (✉) · J. S. Wynn · D. J. Hickling
5 Mallory Court,
Belgrave Road,
Bowdon Cheshire WA14 2NP, UK
e-mail: badariram@hotmail.com

Discussion

The majority of ovarian cysts in young women of reproductive age are benign. The incidence of malignant ovarian cyst in this group is reported as being between 0.4–8.9/100,000 women. It increases to 60/100,000 women at age 60–80 years [3]. The majority of serous neoplasms

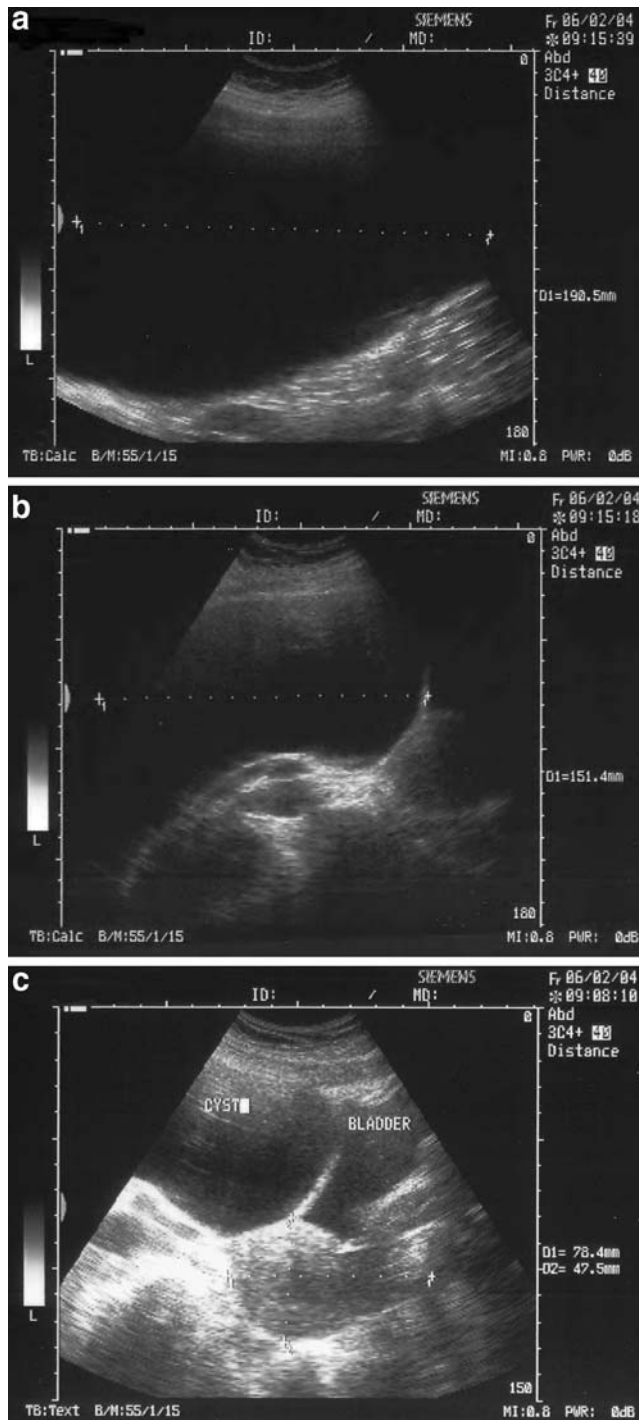


Fig. 1 (a–c) TAS of the pelvis showing a large cyst arising from the pelvis. The cyst is entirely cystic in nature



Fig. 2 Three portal sites. Left supra-pubic entry wound was enlarged to remove the cyst piecemeal

of the ovary are benign (70%). About 5–10% have borderline malignant potential and 20–25% are malignant, depending largely on the patient's age. Benign serous cystadenomas are bilateral in 10% of cases of all serous tumors.

The risk of malignancy index in a young woman of reproductive age with ovarian cyst is low (<3%) if the cyst appears simple in nature on ultra-sonographic assessment (e.g., no solid areas, no evidence of metastasis or bilateral lesion) and CA125 is within the normal limits [3]. Midline laparotomy is the standard surgical management for excision of large ovarian cysts. Laparoscopic excision of such cysts reduces operative morbidity and long-term complications. The size of the cyst is often the limiting factor for laparoscopic management, but this case highlights that enormous simple cysts in young women that are otherwise managed by laparotomy may be aspirated before excision to allow them to be removed laparoscopically. The Veres needle is a simple way to drain the cyst fluid at laparoscopy before proceeding to insufflation. Previously, Eltabbakh and Kaisar [1] reported a case from the USA in

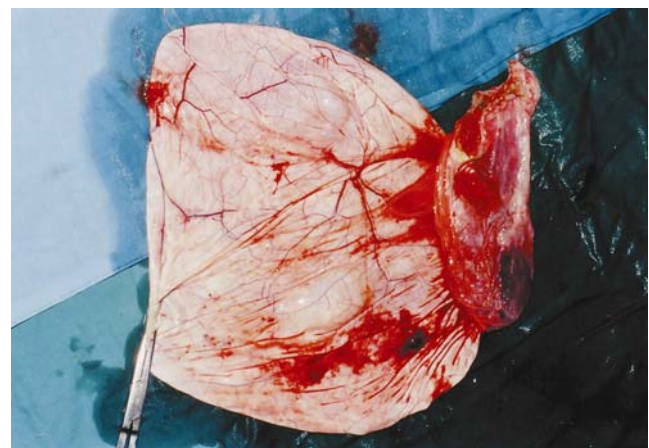


Fig. 3 Collapsed cyst after removal. Tube and mesosalpinx can be identified attached to the cyst

which a Bonanno catheter was used pre-laparoscopy to aspirate the cyst. Salem [2] has reported a case series of 16 cases from Egypt where cysts reaching above the umbilicus were successfully managed by laparoscopic aspiration and excision. In this series, the site of first entry was Palmer's point. Aspiration was performed under direct vision followed by laparoscopic cystectomy. Obviously with very large ovarian cysts it is not possible to aspirate under direct vision. 'Open laparoscopy' in which a rectus sheath is incised and the peritoneum is opened under direct vision can be an alternative technique in such large cysts. We used the Veres needle for initial entry and aspiration as we had experience of this technique in two other patients previously without any complications. As the risk of malignancy was low, the Veres needle was used to drain the cyst prior to

insufflation. In these types of patients laparoscopic management is a safe and cost-effective management option. It significantly reduces the postoperative morbidity and duration of hospital stay and should be offered and discussed fully with all suitable patients.

Figures 1, 2, 3.

References

1. Eltabbakh GH, Kaaisar JR (2000) Laparoscopic management of a large ovarian cyst in an adolescent. *J Reprod Med* 45(3):231–234
2. Salem HA (2002) Laparoscopic excision of large ovarian cysts. *J Obstet Gynaecol Res* 28(6):290–294
3. Prakash A, Li T-C, Ledger WL (2004) The management of ovarian cyst in premenopausal women. *Obstet Gynaecol* 6(1):12–15