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Case Report

Laparoscopic management of giant ovarian cyst in young woman: a case report

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ABSTRACT

Giant ovarian cysts are very rare nowadays and were conventionally treated by full midline laparotomy. In recent years, the laparoscopic approach is also practiced but it needs a lot of expertise and only a few cases have been reported. As the surgical treatment of choice has become less invasive, laparoscopic surgery is considered more beneficial over laparotomy because of better cosmetic results, less blood loss, reduced postoperative analgesic requirement, early mobilization and faster discharge from the hospital and early resumption to normal day to day activity. We report a case of laparoscopic extirpation of a giant right ovarian cyst measuring 15 × 21 × 22 cm in young 24-year female.

Keywords: Better results, Giant, Laparoscopy, Ovarian cyst

INTRODUCTION

Owing to better imaging techniques and minimal invasive approaches giant ovarian cyst are rarely found in the modern era and diagnosis is made at an earlier stage.¹ These types of giant ovarian cysts are usually benign.² Gold standard approach to management of benign ovarian cyst is laparoscopy. However, the treatment plan of ovarian cysts determined by factors like patient age, symptoms, size, structure and menstrual status.³ Laparoscopic surgery is beneficial than laparotomy because of better cosmetic results, less blood loss, reduced postoperative analgesic requirement, early mobilization and discharge from the hospital, and early resumption to normal day to day activity.⁴ Because of the risk of cyst rupture and small working space, laparoscopic approach to larger ovarian cysts extending up to umbilicus may be difficult.⁵ Herein we report a case of a young female with history of increasing abdominal

girth over a period of 2 year along with radiological findings suggestive of very large tumour arising from the right ovary and treated by complete laparoscopic removal of the giant ovarian cyst.

CASE REPORT

A 24-year-nulliparous female presented to our department with complaint of progressive abdominal distension over 2 years. There was no history of abdominal pain, nausea and vomiting or weight loss. She attained menarche at 14 years of age with subsequent regular cycles. On physical examination she was afebrile, vitals were stable, chest and cardiovascular examination was normal. There was no pallor, oedema and lymphadenopathy. The abdomen was distended with large ill-defined pelvic abdominal cystic mass extending from pubis to epigastrium with an abdominal girth of 100 cm. No tenderness was present on abdominal

examination and a dull note was found on percussion. Abdominal computed tomography finding was consistent with a large 15 × 21 × 22 cms well defined, unilocular abdomino-pelvic cystic lesion with mean low density internal attenuation ~5-6HU. The lesion was displacing the bowel loops and abdominal vessels with no internal septations or enhancing nodules. The cyst was closely abutting the capsular surface of right ovary (Figure 1).

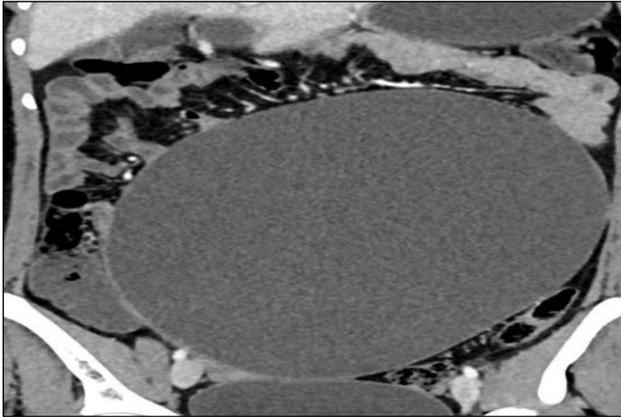


Figure 1: Abdominopelvic computed tomography showing a large well defined homogeneously unilocular cystic lesion originates from right ovary measuring 15 × 21 × 22cm. No obvious septations or mural nodule seen.

There was no ascites, significant lymphadenopathy or omental nodularity. Uterus and left adnexa was normal with endometrial thickness of 6 mm. All tumour markers including beta HCG, CEA, AFP, CA19-9, and CA-125 were within normal limits along with other routine investigations. The pre-operative evolution was suggestive of benign cyst and a decision of laparoscopic approach was chosen.



Figure 2: Total excision of cyst wall measuring around 28cm.

Under general anaesthesia, a 10mm trocar (camera port) was inserted through umbilical incision, laparoscopic

examination was suggestive of a benign cystic mass arising from right ovary, two 5 mm trocars were inserted in the lower quadrant bilaterally and one additional 5 mm trocar in left hypogastrum. The cyst was drained under laparoscopic guidance. Twelve litres of clear fluid was drained and sent for cytological evaluation. Cyst wall was identified and removed completely. Haemostasis was achieved. The endo bag was placed through 10 mm trocar and cyst was placed inside it and removed and sent for histopathology. Contralateral ovary and uterus were found normal. Lymph nodes was not enlarged. The liver, gall bladder, bowel and omentum was found normal. Pelvis was irrigated with normal saline.

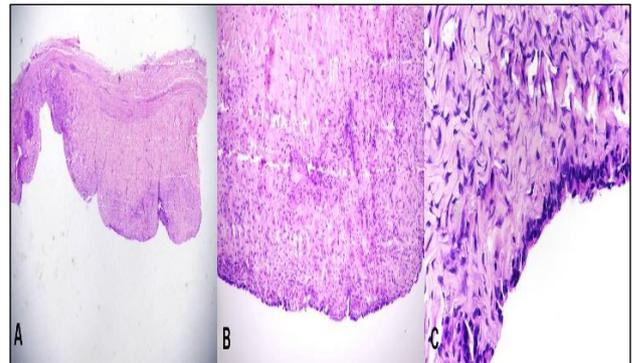


Figure 3: A) Fibrous walled cyst with no epithelial thickening (H&E X 20); B) the cyst is lined by columnar epithelium (H&E X100); C) abundant cilia and no atypia (H&E X400)

Estimated blood loss was minimal. Total cyst excised measured 28cm (Figure 2). The patient tolerated the procedure well. The mean operative time was 50 min. The postoperative course was uneventful. Patient was discharged on second post-operative day. Fluid cytology revealed no malignant cells and histopathological examination was suggestive of serous cystadenoma (Figure 3). The patient is doing well 2 months' post follow-up.

DISCUSSION

Due to better imaging modalities giant ovarian cyst is a rare finding as diagnosis is made at an early stage.⁵ Site of origin of giant intra-abdominal cyst can be ovaries, gastrointestinal region, urological and lymphatics.⁶ In 1922 Spohn documented and removed largest ovarian tumour weighing approximately 148.6 kg and Symonds in 1963 reported an ovarian cyst of 72 kg.¹ On the basis of size ovarian cysts are labelled as large if they are greater than 5 cm and giant when over 15cms in diameter.² Most common type of epithelial neoplasms encountered are serous cystadenomas.¹ Traditionally giant ovarian cysts were managed by using midline laparotomy.³ Now due to availability of advanced techniques, equipment and expertise in minimally invasive surgery, laparoscopic cyst excision is preferred over laparotomy in management of giant ovarian cyst.¹ A probability of

malignancy, restricted operating field and rupture of cyst are critical considerations for management of cyst via laparoscopic route.⁴ However, excision of such giant cysts requires decompression that can be done either by ultrasound guided drainage or via mini-laparotomy or by laparoscopic guided aspiration.² Decompression of cyst also helps in prevention of perforation of giant ovarian cyst during trocar insertion and spillage of cyst contents intra-abdominally.⁵ Along with benefits of laparoscopic surgery it may also reduce postoperative adhesions which has its own significant benefits like reduction in pelvic pain, improved quality of life and improved fertility especially in case of young unmarried females.⁶

CONCLUSION

Giant ovarian cysts should not be considered as a contraindication to laparoscopic surgery and can be managed laparoscopically regardless of size when tumour markers and imaging techniques excludes the possibility of malignancy. It is less invasive with minimal blood loss with less requirement of post-operative analgesics, short hospital stay and better cosmetic value which is important for young females.

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