

# Massive Ovarian Cysts - Successful Management of Two Cases

J Ravindran, MRCOG  
*Department of Obstetrics and Gynaecology,  
Hospital Seremban, Seremban*

## Summary

Massive ovarian cysts are not commonly encountered. They frequently present a challenge to the gynaecologist who is faced with them.

Two cases of successful removal of massive ovarian cysts are presented. Successful management would involve recognition of complications which occur at various steps in the treatment.

**Key Words:** Massive ovarian cyst

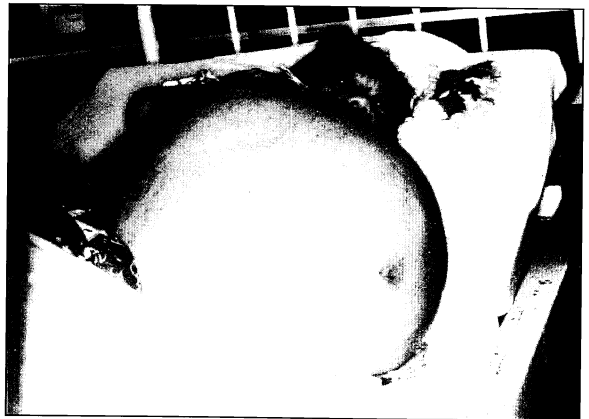
## Introduction

Giant ovarian tumours have been termed a medical curiosity<sup>1</sup>, an irresistible challenge to the surgeon<sup>2</sup> and rarely encountered<sup>3</sup>. Although these tumours are now rarely seen in this country due to increasing access and acceptance of medical care, gynaecologists may still be faced by the occasional patient who presents with massive abdominal tumours. Two cases managed over the last five years are presented. To minimise the morbidity and mortality of this condition, severe cardiorespiratory embarrassment and surgical technical difficulties should be recognised as potential life-threatening complications.

## Case No 1

A 57-year-old Malay lady was admitted to the gynaecology ward with a 10 year history of increasing abdominal girth. She had become amenorrhoeic seven years prior to admission. For the past one month she had become weak in the right side of the body and could not move about without assistance. She had not sought treatment earlier because she had been frightened of surgery. However since traditional treatment had not helped her weakness, she finally sought help from the hospital.

The patient had massive abdominal distension which was dull to percussion (Fig. 1). There was tachypnoea with flaring of the lower rib cage and bilateral pitting oedema up to the lower thighs. Neurologically she had a right sided weakness which did not affect the facial muscles. She was seen by the physician and started on nifedipine for hypertension. She had mild anaemia which rapidly corrected itself with oral haematinics. Liver and renal functions were within normal limits.



**Fig. 1: Patient with massive abdominal distension**

## CASE REPORT

She was started on preoperative physiotherapy and surgery was planned nearly four weeks after admission when hypertension was controlled and consent was obtained.

Under general anaesthesia, a wide elliptical skin incision was made and a left ovarian cyst was mobilised and delivered whole. The cyst weighed 28 kilogrammes. An uncomplicated hysterectomy and removal of the other ovary was then performed. Redundant abdominal wall was excised and repair done. She was closely monitored in the intensive care unit for three days before transfer to the general ward. She had a remarkably uncomplicated recovery and went home on the fourteenth day being able to ambulate on her own. Histopathology showed a borderline mucinous cystadenocarcinoma. She has remained well on follow-up for the last four years.

### Case No 2

A 29-year-old Malay lady returned to the gynaecological department with massive abdominal distension after defaulting for two years. She had defaulted follow-up after being advised surgery for an ovarian cyst. She was a Para 2. She experienced worsening dyspnoea for four months and was unable to stand for one month.

On examination, she was cachexic, pale and tachypnoeic. Air entry to both lung bases was absent in association with flaring of the lower ribs. The

abdomen was grossly distended with numerous superficial dilated veins and a palpable fluid thrill (Fig. 2).

Basic investigations revealed a haemoglobin of 4.2gm/dl and lowered total serum proteins. Chest X-ray showed bilateral diaphragmatic elevation with diminished lung fields and cardiac distortion. In an attempt to improve her dyspnoea, abdominal paracentesis was performed on admission and a total of 18 litres of fluid drained over eight days. This alleviated her dyspnoea and preoperatively eight units of blood was slowly transfused.

Laparotomy was performed 10 days after admission. A large right ovarian cyst was removed after freeing adhesions to the liver and to the site of abdominal paracentesis. The left ovary, uterus and other abdominal structures were normal. The cyst was removed intact and weighed 20 kilogrammes. The abdomen was reconstructed as mentioned in the previous case. No anaesthetic problems were encountered perioperatively. The patient was extubated at the end of the procedure and an abdominal support was applied.

The patient made an uneventful recovery and was discharged 10 days later. Microscopic examination of the cyst showed a papillary mucinous cystadenocarcinoma. She was counselled and elected to undergo chemotherapy as she was still desirous of further children.



**Fig. 2:** The superficial dilated veins are clearly visible

### Discussion

In recent years there have been fewer reports of cysts achieving massive proportions. Dotters, Katz and Currie in their excellent review of the subject have reported that there have been only 25 massive ovarian tumours reported in the English literature since 1947<sup>1</sup>. Since then there has been one further report<sup>2</sup>. The size of the cysts reported ranged from 26 to 126 pounds. The two cases reported here had cysts weighing 28 kg (61 lb) and 38 kg (84 lb) respectively.

Most massive tumours reported have nearly all been cystic, as have been the two cases reported here. Large tumours have usually been thought to be benign.

However in the review of previous cases, 27 per cent showed either frank carcinoma or 'borderline' low malignant potential lesion as in these two cases.

Bearing the above in mind, preoperative paracentesis can be discussed. The benefit of this procedure is disputed. Some authors advocate this approach and recommend drainage of 3-5 litres of fluid daily. However others report that this has no effect on the cardiorespiratory function and may cause infection, adhesions or implantation of ovarian carcinoma<sup>3</sup>. Preoperative paracentesis should preferably be avoided but has to be performed in some cases to alleviate cardiopulmonary embarrassment while the patient is built up for major surgery.

Fluid and electrolyte imbalance can occur perioperatively. In association with such abnormalities, circulatory collapse, electrolyte disturbance and disseminated intravascular coagulation may occur, which require urgent correction. Both spinal and epidural anaesthesia are contraindicated because they may precipitate hypotension. A head-up position with left tilt on the operating table will avert supine hypotension. This technique was used in both the cases. Both cases did not require postoperative ventilation. Abdominal binders were used until abdominal muscle tone was regained and early ambulation was encouraged.

Intact cyst removal should always be aimed for, with gradual rolling of the mass off the inferior vena cava. There should be no compromise on the abdominal incision which would stretch from symphysis pubis to the xiphisternum. Although repeated paracentesis

would make eventual cyst removal difficult due to adhesion formation, it was possible to remove the cyst intact even in the second case.

Appropriate closure technique would involve the excision of a wide ellipse of skin and the approximation of the peritoneum, fascia and recti in the midline with slight overlap<sup>1</sup>. Both patients consented to the loss of their umbilicus and achieved a good cosmetic result after surgery.

Bowel distension has been mentioned as a serious complication of removing large intra-abdominal tumours<sup>2</sup>. This was averted by nasogastric drainage by Ryle's tube for 72 hours before starting feeds. Thromboembolic prophylaxis has also been advocated for these patients. Both patients were managed by early ambulation due to the rarity of thromboembolic phenomena in our population. One should keep in mind that failure to appreciate the low postoperative weight can sometimes lead to overanticoagulation and haemorrhage.

### Conclusion

Two cases of successful removal of massive ovarian cysts are presented. Management should take into consideration the pre-, peri- and post-operative complications which may arise.

### Acknowledgement

The author wishes to thank the Director-General of Health, Malaysia for permission to publish this case report.

### References

1. Dotters DJ, Katz VL, Currie J. Massive ovarian cyst: a comprehensive surgical approach. *Obstetrical and Gynaecological Survey* 1988;43 : 191-6.
2. Vipond MN, Hershman MJ, Hershman M. Management of a giant ovarian cyst. *Br J Hosp Med*. 1991;45 : 313-4.
3. Hunter DJS. Management of a massive ovarian cyst. *Obstet Gynecol*. 1980;56 : 254-5.