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Case Report

A rare case report of massive ovarian edema

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ABSTRACT

Massive ovarian oedema is a benign ovarian pathology occurs due to partial ovarian torsion and blockage of lymphatic drainage of the ovary. Commonly presents with pain abdomen on and off or abnormal uterine bleeding. Here we report a case of 15 years old girl with spotting per vaginum for 45 days. On examination, revealed 28 weeks size mass arising from pelvis. On further evaluation and blood works, proceeded with surgical management. Histopathological examination revealed benign massive ovarian oedema. However, it's important to know differential diagnosis for solid ovarian tumours.

Keywords: Massive ovarian oedema, Fertility preserving surgery, Adolescent age group

INTRODUCTION

Massive ovarian oedema is a benign pathology of ovary, most commonly caused due to recurrent partial torsion of ovary resulting in blockage of venous and lymphatic drainage.¹ Because there is no arterial block, there is no gangrene or necrosis in ovary. Due to dysfunctional lymphatic mechanism, there is disturbance in normal luteinisation of ovary resulting in hormonal dysfunction.² Other causes of ovarian oedema can be retroperitoneal lymphoma, metastatic carcinoma, polycystic ovary syndrome (PCOS).³

CASE REPORT

A case report of 15-year-old girl with complaints of spotting per vaginum in the last 45 days, not associated with foul smelling discharged, fever, urinary tract infection, loss of weight or appetite, pain abdomen. Menstrual cycle was irregular. No history of malignancies in family. On examination normal built and nourished. Per abdomen palpation revealed mass palpable of size 28

weeks, regular margins, cystic in consistency, non-tender. Ultrasound sound done revealed a large clear cyst of size 8.8×6.7 cm in right adnexa. Solid mass with cystic spaces of size 16×8 cm in right iliac fossa extending up to epigastric region. Contrast enhanced computed tomography (CECT) done revealed two cysts in right ovary, large smooth surface cystic mass lesion arising right ovary measuring 20×16.8×6.8 cm with enhancing septations and no papillary projections, compressing the right distal ureter causing proximal hydronephrosis. Another unilocular cystic lesion, measuring 8.7×5.9×7.5 cm with hypodense content. Tumour markers done showed CA-125 (8.2 U/ml), carcinoembryonic antigen (CEA) (0.99 ng/ml), beta human chorionic gonadotropin (hCG) (0.7 mIU/ml), lactate dehydrogenase (LDH) (255 U/l—mildly elevated), alpha feto protein (<0.6 ng/ml) were normal. After taking informed consent and pre anaesthetic fitness, patient was taken up for laparotomy with frozen section. Patient abdomen opened through midline vertical incision. Peritoneal wash given and sent for cytology. Right ovarian mass of size 20×15×16 cm noted with smooth surface and intact capsule, which was partially

twisted. A right para ovarian clear cyst was noted of size 12×11×10 cm. Specimen sent for frozen section after performing right salpingo ovariectomy. Frozen section reported as Massive ovarian oedema. Final histopathology report also confirmed massive ovarian oedema and benign serous cyst extending from right fallopian tube.



Figure 1: USG showing dense echotexture of ovarian cortex.



Figure 2: USG showing right adnexal cyst.

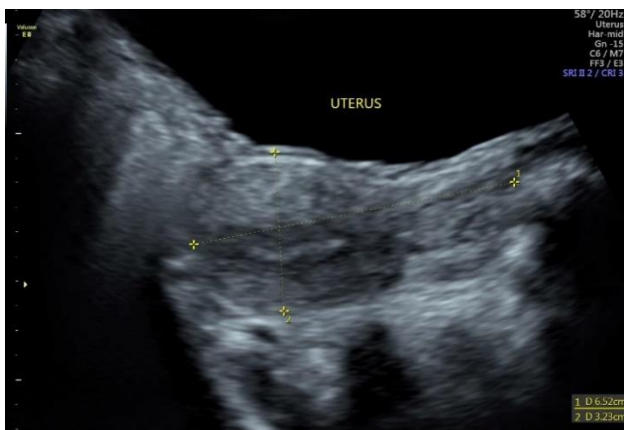


Figure 3: USG picture of uterus.

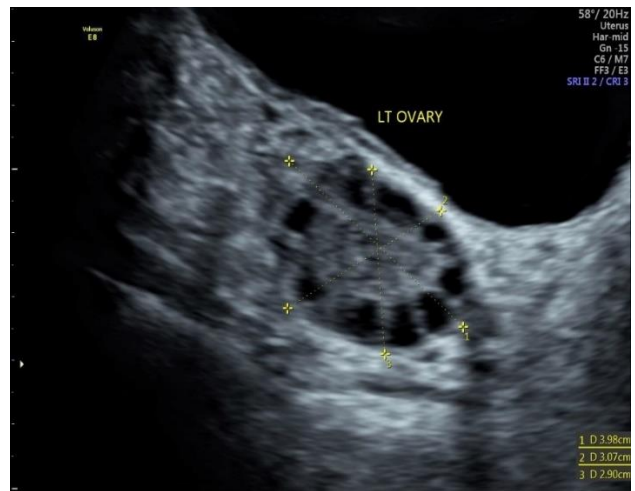


Figure 4: USG picture of left ovary.

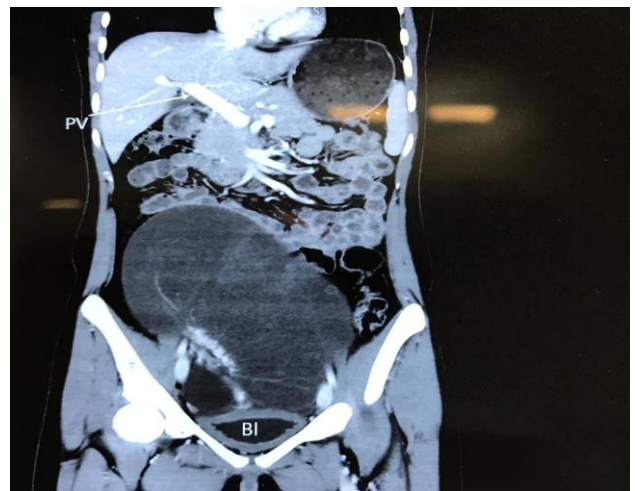


Figure 5: CT picture of right ovarian mass.



Figure 6: CT imaging showing right adnexal clear cyst and distal ureteric compression and proximal hydronephrosis.

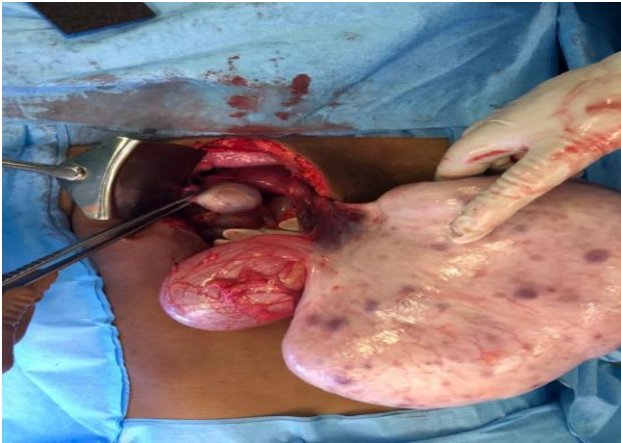


Figure 7: Intraoperative picture showing right ovarian mass with right adnexal cyst.

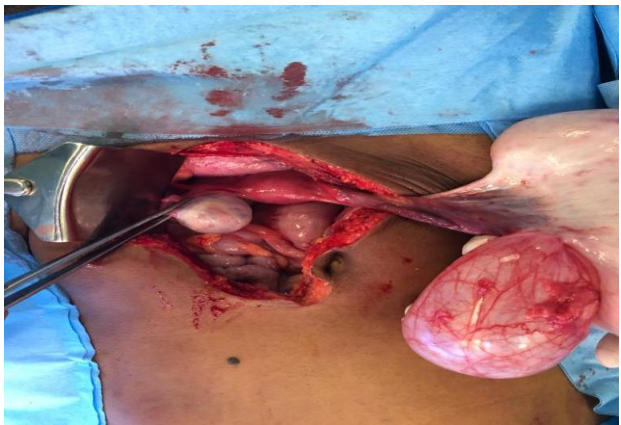


Figure 8: Intra operative picture showing partial torsion of right ovarian pedicle.

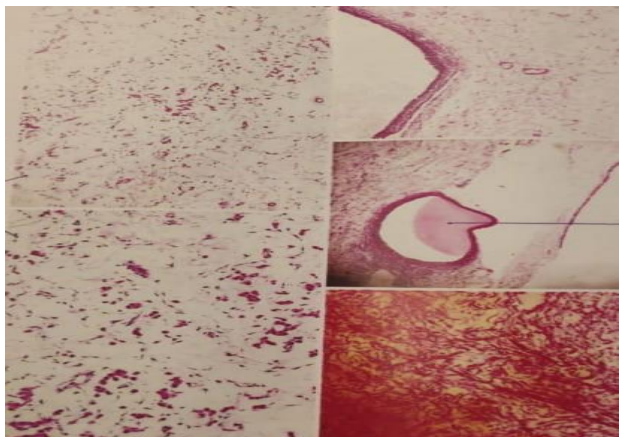


Figure 9: Histopathological examination revealed loose ovarian stroma with fluid inside, clusters of lutein cells in the stroma resulting in luteinization of stromal cells. Cystic follicle or cystic lesions are seen.

DISCUSSION

Massive ovarian oedema is a rare pathology, presents as unilateral enlargement of ovary with no signs of

neoplasia.¹ It can present both unilaterally or bilaterally. If unilateral more common on the right side due to anatomical position of vein and lymphatic system on the right side. Presents between 6-33 years, with average age being 21 years.⁴ Patients most commonly presents with intermittent pain abdomen which resolves on itself.⁵ Other symptoms include Abnormal uterine bleeding, Abdominal distension, sometimes features of virilisation/masculinisation. Irregular menses as in our patient might be due to androgen action from the ovarian stroma or unopposed estrogen stimulation.⁶ Most probable reason for ovarian oedema is recurrent partial torsion of the ovary which causes disturbances in venous drainage, thereby causing improper lymphatic drainage and accumulation of lymph fluid in the interstitium of ovary. No gangrene or necrosis of ovarian tissue is noted as the arterial supply is not disturbed. Ovarian oedema can be associated with polycystic ovarian syndrome.⁷

Hormonal symptoms are mostly commonly because of luteinised cells, which is associated with polycystic ovarian syndrome.² It is important to identify the condition, so that we don't over treat the patient and cause set back in hormonal and fertility status.³

CONCLUSION

Since most of the patients presenting with massive ovarian oedema are in reproductive age, Fertility preservation is the key in management. Due to discrepancy in radiological reports and difficulty in pre operative diagnosis, makes it difficult to plan conservative management. Wedge resection with removal of minimum 30% ovarian volume with frozen section can prevent or reduce the incidence of salpingo oophorectomy. Detorsion with oophoropexy/partial debulking and drainage of accumulated fluid in the cyst will be appropriate management in young women.

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Ethical approval: Not required

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