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Torsion of Huge Benign Ovarian Mass: A Case Report

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ABSTRACT

BACKGROUND

Ovarian torsion is a dire gynaecological emergency. Emergency laparotomy, detorsion and cystectomy are often the treatments of choice to preserve fertility.

CASE REPORT

Mrs. OA, a 27-years old breastfeeding, primiparous mother presented to Semino Hospital and Maternity, Enugu on August 31, 2020 with a 2-days history of severe abdominal pain and a previous history of ovarian cyst in her pregnancy. Patient was in painful distress and an emergency laparotomy, confirmed, torsion of left ovarian cyst, normal fallopian tubes and uterus; and a suspicious right ovary. Cystectomy and right ovarian wedge resection were done. Investigations revealed benign cystadenoma and normal right ovarian tissue.

CONCLUSION

Ovarian torsion is an emergency that demands a swift surgical intervention to relieve pain and salvage the functionality of the ovary.

KEYWORDS

Ovary; Torsion; Cystectomy; Emergency; Laparotomy

INTRODUCTION

Ovarian torsion is defined as the rotation of the adnexa on its fibrovascular pedicle, compromising the blood flow and leading, in some cases, to ischaemia and infarction of the tube and/or the ovary.It accounts for about 3-5.6% of all gynaecologic emergencies and the incidence among women of all ages is 5.9 per 100,000 women [1,2]. However, an incidence of 0.6% was recorded from a study done in southeastern Nigeria [3]. It occurs more in younger women (15-30 years) and postmenopausal women and approximately 20% of the cases occur during pregnancy [4-6].

The major presentation of ovarian torsion is abdominal pain and abdominopelvic ultrasound is important in diagnosis to differentiate it from other causes of abdominal pain in women. An early, quick and confident

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diagnosis and surgery are required to save the ovary from ischaemia and permanent damage or infarction [7,8].

CASE REPORT

Mrs. OA, a 27-years old primiparous woman presented on August 31, 2020, with 2-days history of severe abdominal pain. The pain was insidious in onset, localized initially at the lower abdominal area but later became generalized and associated with vomiting. It was constant in nature and severe enough to affect ambulation. There was no history of trauma to the abdomen, fever, diarrhea or urinary tract symptoms or use of hormonal contraceptive. She just had a term vaginal delivery barely 3 months earlier and yet to resume menstruation as she was exclusively breast feeding, but she had resumed sexual intercourse. There was also no history of bleeding from the vagina; however there was history of ovarian cyst during her last pregnancy. The pain was fairly relieved by us of oral analgesics but resumed shortly after. For this she had an abdominopelvic ultrasound scan that revealed a left complex ovarian cyst that measured 23 cm × 22 cm and for this she presented to our centre for further care.

She was a married woman doing her National youth service program. Not a known hypertensive or diabetic patient. She had used barrier method of contraceptive in the past but never had cervical screening.

At presentation she was acutely ill-looking in obvious painful distress, afebrile to touch, anicteric, not pale and no bilateral pitting pedal edema. Her weight was 90 kg and height1 was 1.6 m. Her pulse rate was 100 beats/minute, full volume and regular and her blood pressure was 130/70 mmHg. The 1st and 2nd heart sounds were heard and there was no murmur. Her respiratory rate was 20 cycles/minute and the chest clinically clear. The abdomen was distended and moved with respiration. There was marked generalized tenderness making palpation uncomfortable. However, there was a palpable abdominopelvic mass of about 32 weeks size that was smooth on gentle palpation. The bowel sounds were present and optimal on auscultation. Pelvic examination revealed a normal vulva and vagina; the cervix was healthy looking and firm to touch. The pouch of Douglas and the left adnexa were full. Bimanual examination was not done due to severe tenderness and gloved fingers were smeared with clear vaginal fluid.

An assessment of torsion of ovarian mass was made. She was counseled on the clinical findings and the need for immediate exploratory laparotomy. Urgent packed cell volume was 35%, 2 units of compatible blood were provided and retroviral screening, hepatitis B surface antigen and urinalysis were essentially normal. Intravenous pentazocine 30 mg and intramuscular diclofenac 75 mg were given as intravenous fluid normal saline 1 litre was commenced at 20 drops per minute. A written informed consent was obtained and she had an emergency laparotomy with left ovarian cystectomy and right ovarian wedge resection under spinal anaesthesia. The following were found intra-operatively:

- Abdominopelvic mass that measured about 32 weeks size.
- A clean peritoneal cavity.
- A huge left ovarian cystic mass 23 cm × 20 cm that twisted 3 times around the pedicle and weighed 3.4 kg with shinny surface and vascular markings.
- The ovarian tissues were plastered around the base of the mass and looked healthy.
- The right ovary was enlarged measuring about 6 cm × 3 cm.
- The tubes were healthy looking.
- The uterus was normal in size and looked healthy.
- There was no ascitis or any features suggestive of metastasis within the peritoneal cavity.
- Other intraabdominal organs were normal.
- Estimated blood loss was about 250 ml and there was about 200 ml of clear urine in the urine bag.

In supine position routine cleaning and draping were done and a midline sub-umbilical skin incision was made and developed into the peritoneal cavity. The cyst was gently exteriorized and untwisted. A superficial incision was made around the base of the mass to the tissue planes and with the finger wrapped with dry gauze the mass was gently excised from the ovarian tissues without rupturing and haemostasis was secured with vicryl-2/0. The right ovary was also exteriorized and a wedge resection done on it to obtain a sample for histology and haemostasis achieved with vicryl-2/0. The peritoneal cavity was painstakingly examined to rule out other pathologies. The anterior abdominal incision was repaired in layers using vicryl-2 to the rectus sheath and vicryl-2/0 for subcorticular layer. She was cleaned up and transferred to the recovery room. The cystic mass was cut open and 1.5 litres of straw-coloured, gelatinous fluid was drained. The internal surfaces consisted of multiple stumps but no obvious septa.

She was maintained on nothing by mouth until bowel sounds returned on the first day post operatively. She also received intravenous pentazocine, intramuscular diclofenac, intravenous ceftriaxone 1 g twice 12 hourly and intravenous metronidazole 500 mg 8 hourly for 48 hours after which she was maintained on oral metronidazole and ciprofloxacin for 1 week. The post operative period was essentially uneventful and she was discharged on the 5th day after removing the wound dressing. She was seen in the clinic 4 weeks post-operatively and had no symptoms with good wound healing. The results of the cytology and histology were discussed with the patient and the she was adequately counseled and discharged.

Cytology Report

Specimen was a yellowish fluid which on microscopy revealed acellular thin serous fluid lacking protein.

The Histology

This revealed a typical ovarian stroma with corpora atreticans and many collapsed cysts and full cysts with walls lined by non-proliferating low cuboidal epithelium which obviously contains serous fluid. A diagnosis of multiple simple serous cyst adenoma of the left ovary was made. The specimen from the right ovary showed typical normal ovarian stroma (Figure 1 - Figure 4).

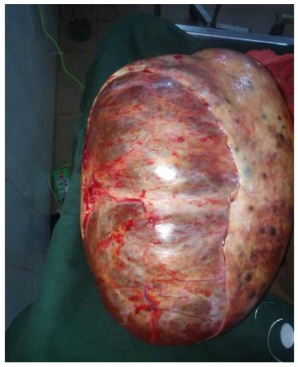

Figure 1: Gross appearance of the cyst.

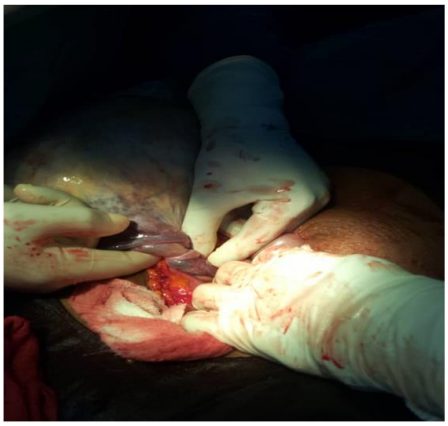

Figure 2: Torsion around the pedicle.

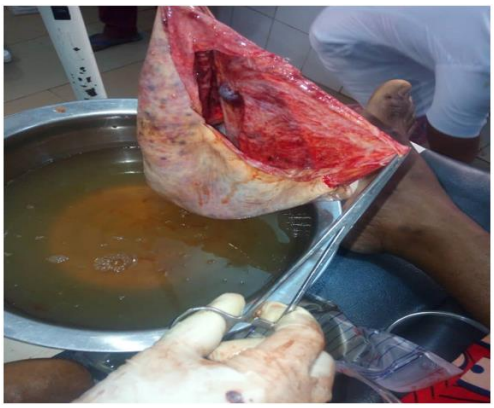

Figure 3: Internal surface of he cyst after incision.

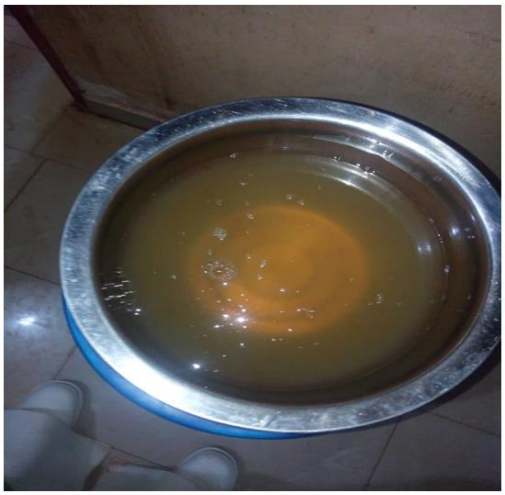

Figure 4: Gelatinous cystic fluid.

3. DISCUSSION

Ovarian torsion is an uncommon occurrence but occurs more in younger women of about 15 years - 30 years of age. It is also common in pregnant women occurring in about 20% of the cases [4-6]. Our patient; Mrs. OA was 27-years old, had a history of ovarian cyst in pregnancy and was only 3 months postpartum. Ovarian tumors larger than 5cm are more prone to torsion and our patient had a tumor of about 14 cm by 10 cm [9].

Early diagnosis and prompt surgical intervention is very important in the overall management of ovarian torsion to relieve the patient and salvage the ovarian function as shown by many observational studies [10,11]. However, Mrs. OA presented a little late but the ovary was still salvaged as it may take quite some days in some cases for the viability of the ovary to be completely lost. This was paramount as she was primiparous and still desirous of more pregnancies.

Histological diagnosis is essential in management of ovarian tumors as that will confirm or rule-out malignancies though uncommon in young women. In the index case, histology revealed a benign serous cystadenoma.

4. CONCLUSION

A gynaecological acute abdomen can arise from ovarian accidents most of which are due to torsion. Early diagnosis and immediate surgical intervention will not only relieve the major symptom of pain but also salvage the viability of the affected ovary, thereby preserving fertility.

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