ORIGINAL RESEARCH PAPER

Obstetrics & Gynaecology

SPONTANEOUS HEMORRHAGIC CORPUS LUTEAL CYST RUPTURE IN PATIENT WITH SEVERE PANCYTOPENIA : A CASE REPORT

KEY WORDS: Corpus luteum, ovarian cyst, rupture cyst, hemorrhagic cyst.

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ABSTRACT

Hemorrhagic corpus luteum (HCL) is an ovarian cyst formed after ovulation and caused by spontaneous bleeding into a corpus luteum (CL). . When HCL rupture happens, a hemoperitoneum results. Clinical symptoms are mainly due to peritoneal irritation by the blood effusion

INTRODUCTION

Acute Abdomen can be catastrophic; can present as a primary complaint in many underlying undiagnosed conditions.

Spontaneous hemoperitoneum is a rare and potentially life-threatening condition defined as blood within the peritoneal cavity of non-traumatic etiology, most common sources of hemorrhage as hepatic, splenic, vascular, or gynaecological. (1)

Hemorrhagic corpus luteum (HCL) is an ovarian cyst formed after ovulation and caused by spontaneous bleeding into a corpus luteum (CL) cyst. When HCL rupture happens, a hemoperitoneum results. Clinical symptoms are mainly due to peritoneal irritation by the blood effusion.

OBJECTIVE

Address need for timely intervention, multidisciplinary management in Acute Abdomen.
Need for multidisciplinary involvement in management of pancytopenia.

CASE REPORT

A 17 y/o girl came to our Emergency with c/o:
1. Pain in abdomen since 3 days, temporary relief with analgesics
2.Vomiting- 1st episode on morning of coming to Emergency.
No syncope/fever/heavy bleeding PV..

No known comorbidities. No previous history of surgical illnesses.

- O/E: conscious, oriented, with severe pallor present.
- Bp-100/70 mm Hg, PR- 118/min.
- P/A: distended, ecchymotic patches seen in periumbilical area, guarding/rigidity absent.
- L/E- NAB- patient on Day 4 of Menses.
- USG s/o: 5.8 cm sized= 47 cc of hypoechoic collection, fishnet pattern noted in left adnexa, rent over right lateral wall of cyst, suspicious of hemorrhagic cyst rupture, moderate hemoperitoneum present.

BLOOD INVESTIGATIONS:

- Hb-3.3 gm%
- TLC-4100/cm^2
- Platelet-count-5000/ cm^2
- Sr.TSH-39 U/ml
- D-Dimer-8400FeU/ml
- UPT- negative.
- BT/CT/PT/INR/APTTWNL.
- Urgent Medicine/ Ophthalmology/ Haematology reference sent.
- ICU bed reservation, cross match of blood and products done, whole Blood profile including coagulation profile sent.
- Wide bore IV access taken. Massive Blood Transfusion Protocol initiated.
- Bladder catheterisation: blood tinged urine noted.
- Medicine reference: Transfusion of 3 pint whole blood, with Inj furosemide. ICU bed reservation.
- Hematology reference: Send Sr. ANA, HHH, Peripheral smear. Inj Dexamethasone to be given.
- Ophthalmology reference: no fundoscopy changes.
- High risk consent, with death on table consent taken by the patient's guardians.
- After initial resuscitation and stabilisation, patient underwent Emergency Exploratory Laparotomy.
- Preop: 4 pint RDP. Intra-op: 4 pint FFP, 2 pint PRBC. Post op: 4 pint RDP, 1 pint PRBC given.

INTRA OPERATIVE FINDINGS

Massive hemoperitoneum: approximately 750 ml noted, Left ovarian cyst rupture, active bleed through ovarian tissue + Bleed through left tubal end +. Left tubal end tortuous Some collection of approximately 50cc seen in the splenic flexure. Rest of the abdomen NAD.

Splenic flexure drain and POD drain placed.
Left-salpingo-oophorectomy done; patient shifted to ICU post-operatively.
Estimated blood loss: 1200 ml.

POST- OPERATIVE MANAGEMENT

ICU STAY:

- Patient intubated on ventilator, vitally stable on NORAD infusion.
- Splenic flexure drain and POD drain: blood tinged output.
- Urine output clear, adequate.

Rx:

- Vitals monitoring, urine/drain output monitoring, Abdominal girth charting.
- Antibiotic cover: ceftriaxone/metronidazole/amikacin
- Inj calcium gluconate given.
- POD1: blood profile: (after transfusion of blood/blood products)
- Hb: 7 gm%
- TLC: 8000/cumm
- Plt count: 25,000/cumm

- On POD2- plt count dropped to 10,000/cumm- 6 RDP transfused.
- Haemat ref: continue Inj dexamethasone 20 mg BD and to trace Sr ANA reports.
- Patient extubated- stable.
- Started on Tab Thyronorm 25 mcg OD (TSH- 39 IU/ml)
- POD3: Plt count: 53,000/cumm
- POD4: plt count 1,30,000/cumm: ANA POSITIVE (IF) (blotting: negative)
- On POD7 onwards, steroid tapering started. Drains removed.
- On POD10: Hb 8.7 gm%, Plt count: 1,65,000/cumm
- Rheumat opinion: send C3, C4 LEVELS.
- On POD12- patient discharged.
- F/U in OPD with reports from Histopathology:
- Fibrocollageneous cyst wall with bilayered lining, inner granulosa and outer theca cells. Lining of epithelium denuded at places. Cyst wall shows extensive hemorrhage, hemosiderin-laden macrophages, granulation tissue and fibrosis, no atypia/malignancy/granuloma/endometrial glands- s/o Hemorrhagic Corpus Luteal Cyst.
- Other specimen: multiple congested, dilated blood vessels with hemorrhage and hemosiderin deposition in transverse sections of Fallopian Tube- s/o Congested Fallopian Tube.

OUTCOME/FOLLOW UP

- Patient later detected ANA positive, Sr C3/C4 negative, further treated with steroids under guidance of rheumatologist.

DISCUSSION

- Spontaneous massive hemoperitoneum is a rare and life-threatening condition in the setting of blood disorders, particularly disorders that predispose patients to bleeding.
- This case adds to the list of rare causes of massive bleeding from ruptured corpus luteum cysts.
- The patient presented in extreme with massive hemoperitoneum requiring intensive resuscitation secondary to brisk bleeding.

CONCLUSION

- Case represents catastrophic complications of ovarian cyst rupture, urgent need for to address simple complaints in a patient like pain in abdomen.
- Timely management and multidisciplinary involvement in such emergencies cannot be overstressed upon.
- It also presses on the need for routine check-ups, correction of malnutrition, patient went undetected with hypothyroidism and immune disease causing pancytopenia.

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