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Case Report

Post coital hemoperitoneum: The pain of love

Subramanian Senthilkumaran [a, *], Narendra Nath Jena [b], Srinivasan Jayaraman [c], Florence Benita [d], Ponniah Thirumalaikolundusubramanian [e]

[a] Department of Emergency and Critical Care, Be Well Hospitals, Erode, Tamil Nadu, India
[b] Department of Emergency Medicine, Meenakshi Mission Hospital and Research Centre, Madurai, Tamil Nadu, India
[c] Department of Emergency Medicine, SRM Institutes for Medical Science, Chennai, Tamil Nadu, India
[d] Department of Emergency Medicine, Velammal Medical College Hospital and Research Institute, Madurai, Tamil Nadu, India
[e] Department of Internal Medicine, Chennai Medical College Hospital and Research Center, Irungalur, Trichy, Tamil Nadu, India

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ABSTRACT

Acute abdominal pain in women of reproductive age is common and frequent cause for visit to emergency department which warrants emergent evaluation. We present the case of a 23-year-old nulliparous women presenting with post-coital haemoperitoneum secondary to a ruptured corpus luteum cyst. This is a rare case demonstrating the need to elicit sexual history in patients presenting with an acute abdomen in emergency department.

1. Introduction

Sexual activities bring pleasure to partners, but at times pain and problems to practitioners and emergency physicians. Here, we present the case of a 23-year-old nulliparous women presenting with post-coital haemoperitoneum secondary to a ruptured corpus luteum cyst.

2. Case report

A 23-year old married female presented to the emergency department with sudden onset of abdominal pain lasting for 5 h. It was associated with syncope. Her abdominal pain started 15 min after her non-vigorous intercourse with the patient on top. There was no history of fever, chest pain, headache, nausea, vomiting, burning micturation and bleeding episodes. She did not have any known gynecologic problems including menorrhagia, dysmenorrhoea and vaginal discharge. Her last menstrual period was six days prior which was normal in flow and duration. She denied any such episodes in the past. She was sexually active with a single partner and did not use any methods of contraception. There was no history of sex toy use or trauma.

On examination, she was conscious, anxious, and pale with blood pressure of 80/60 mmHg and heart rate of 134/min. Systemic examination was normal but for distended abdomen with generalized tenderness and infra-umbilical guarding. No evidence of trauma was made out during perineal and genital examination. Bimanual pelvic examination revealed anteverted normal sized uterus, with cervical motion tenderness and fullness in the posterior fornix. Initial laboratory investigations showed hemoglobin of 10 g/dl with mild leukocytosis. Her biochemical, coagulation and metabolic profiles including liver function test, thyroid panel, and lipase were normal. Her urine pregnancy card was negative and serum beta-HCG was below 3 IU (non-pregnant <10 IU). Transabdominal ultrasound revealed a moderate amount of fluid in the abdomen and pouch of Douglas, with a complex right adnexal mass. Transvaginal ultrasound confirmed right adnexal mass with a rim of increased echogenicity surrounding the cystic component in the adnexal area, associated with free hypoechoic fluid in the peritoneal cavity. In view of hemodynamic instability, worsening of pain and drop in hemoglobin emergent laparoscopy was done which revealed 800 ml of intra-abdominal blood. A ruptured bleeding corpus luteum cyst in the right ovary was identified as the

* Corresponding author. Department of Emergency & Critical Care Medicine, Bewell hospitals, Erode, Tamil Nadu, India.
E-mail address: maniansenthil@yahoo.co.in (P. Thirumalaikolundusubramanian).
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cause for hemoperitoneum. Other abdominal organs were normal. She was managed appropriately and got discharged on the sixth day. There was no recurrence during a follow up of one year period.

3. Discussion

Corpus luteum is a functional cyst develops from an ovarian follicle during the menstrual cycle which involutes spontaneously as corpus albicans when fertilization does not occur. Being a thin-walled and highly vascular structure, it is prone for hemorrhage and may leak blood into the peritoneal cavity causing haemoperitoneum. Patients may present a wide range of clinical signs and is often misdiagnosed as ruptured ectopic pregnancy, ovarian torsion, endometriosis and acute appendicitis.[1] The diagnosis is based on a high suspicion from history, with patients usually being in the luteal phase of the ovarian cycle and may present after recent sexual intercourse.[2] Corpus luteum cyst rupture with haemoperitoneum may appear sonographically similar to a ruptured ectopic pregnancy, and hence, estimation of serum βhCG-levels becomes mandatory to rule out pregnancy. The precise mechanism for postcoital haemoperitoneum due to cyst rupture though not known, it is hypothesized that forces occurring during intercourse may result in acceleration–deceleration injuries or change in intraluminal pressure created during coitus[3] might have precipitated the episode Ho et al.[4]. In their series of 91 women diagnosed with ruptured corpus luteum cysts and hemoperitoneum, noticed recent sexual intercourse in many. Increased awareness of this rare cause of haemoperitoneum is likely assist improved management with the aid of radiological imaging prior to theatre.

Majority of such cases do not voluntarily admit the preceding act of coitus during initial presentation and examination so care must be taken to elicit a detailed sexual history. Hence, sexual activity related emergencies have to be considered and discussed during clinical rounds, as timely recognition will help to empower the patients and prevent recurrences in susceptible population.

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Conflicts of interest

None declared.

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