



**Introduction** Acute abdominal pain with hemoperitoneum is common gynaecological emergency. In childbearing age women, ectopic pregnancy and ruptured corpus luteum need to be ruled out. However, rare cases due to ovulation bleed have been reported in women with bleeding tendencies. We report even more uncommon cases in which ovulation bleed were associated with non-vigorous sexual intercourse with no evidence of vaginal trauma or injury.

## Case Presentation

**Case 1:** A 29 year old Para 2 healthy lady presented with sudden left iliac fossa pain with pain score of 7/10 preceded by sexual intercourse immediately prior. There was no associated dyspareunia or vaginal bleeding. She is not on medication or supplements and has no symptoms of bleeding tendency. Her menses is regular with 30 to 35 days cycle, with no heavy bleeding. Her two previous childbirth were uncomplicated via spontaneous vertex delivery and Caesarean section.

Interestingly she had similar presentation 7 weeks prior needing laparotomy right cystectomy for haemorrhagic cyst. She lost two litres of blood needing transfusions.

On current presentation, her blood pressure was 118/75 mmHg and pulse was 87 bpm. Abdomen was not distended, no guarding but tenderness was elicited at left iliac fossa.

Urine pregnancy test was negative. Haematologically, haemoglobin level was 12.3 g/dl with platelet of 175 X 10<sup>9</sup>/L. Ultrasound showed complex left adnexal mass measuring 4 x 4 cm with no free fluid.

She was admitted for observation. Her vital signs remains stable and haemoglobin levels static. She was discharged after 24 hours and was well during follow up three weeks later.

She reported that her menses came two weeks after the initial presentation which was suggestive of ovulation bleeding precipitated by sexual intercourse coinciding with ovulation time. She also recalled her first presentation with massive hemoperitoneum was at almost same time of the cycle which was also preceded by sexual intercourse.

**Case 2:** A 33 years old nulliparous lady with no medical illness, presented with sudden onset of right iliac fossa pain with pain score of 7/10 preceded by sexual intercourse on day 27 of her menstrual cycle. Her menses is every 35 to 40 days. There was no dyspareunia or vaginal bleeding.

She was tachycardic with pulse rate of 105 bpm which responded to intravenous fluid. Blood pressure was 128/93 mmHg. Abdomen was not distended, no guarding but there was tenderness at right iliac fossa. Right cervical motion tenderness was present.

Urine pregnancy test was negative. Haematologically, haemoglobin level was 11.2 g/dl with platelet of 329 X 10<sup>9</sup>/L. Ultrasound showed normal and empty uterus with 6.5 x 4 cm heterogenous mass at pouch of Douglas (POD). Ovarian tissue appearance was seen in the midst of the heterogenous mass suggestive of clots surrounding the ovary. There was free fluid up to Morison's pouch.

She declined surgical intervention however agreed for admission. She was closely monitored whereby she remained stable haemodynamically and haemoglobin remained static (10g/dl) and was discharged after 48hours.

Three weeks later, she was well with no pain, and ultrasonography showed presence of 7 x 3cm heterogenous mass with resolved free fluid.

Figure 1



Figure 2



Figure 1 and 2: Complex mass at left adnexa 4cm x 4cm extending to POD

Figure 3



Figure 3: Ovarian tissue in midst of heterogenous mass 6.5cm x 4cm occupying POD

**Discussion** Diagnosis of ovulation bleed is likely if patient is in luteal phase. Coinciding sexual intercourse increases likelihood for excessive bleeding due to increased blood flow to pelvic organs and genitalia causing vasocongestion<sup>[1]</sup>. Acceleration-deceleration force and increase intraluminal pressure during coitus may also predispose to injury<sup>[2]</sup>.

Ovulation bleed should be considered in women with bleeding tendency or on anticoagulant but is also possible in those without bleeding problems when there is coinciding history of sexual intercourse. As for now there are no standard protocol reported in literature regarding the management of hemorrhagic corpus luteum. The main targets in treatment are to eliminate bleeding source while preserving ovarian function. Surgical approach has been the main treatment previously, however if pain resolved, patient's hemodynamic and hematological status remained stable, conservative approach should be considered as an option.

**Conclusion** Ovulation bleed causing hemoperitoneum should be considered in childbearing age women as ectopic pregnancy and ruptured corpus luteum. Proper menstrual cycle history is mandatory and history of prior sexual intercourse should alert the gynecologist. Management will be based on hemodynamic stability of patient.

## References

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## PC188

## HEMOPERITONEUM ASSOCIATED WITH COITUS DURING OVULATION

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**Introduction:** Acute abdominal pain with hemoperitoneum is a common gynecological emergency. In childbearing age women, the commonest causes need to be ruled out include ectopic pregnancy and ruptured corpus luteal cyst. Acute abdomen with hemoperitoneum due to ovulation bleed is almost unheard of and rare. Even more uncommon are ovulation bleed associated with non vigorous sexual intercourse with no evidence of vaginal trauma or injury. **Case reports:** We presented 2 cases of women aged 29 and 33 years old presented to emergency department Sultan Ahmad Shah Medical Centre (SASMEC)@IIUM with acute abdominal pain preceded by sexual intercourse at mid menstrual cycle. Interestingly, 1 of them had similar presentation prior within the same year whereby she had undergone emergency laparotomy and cystectomy for ruptured hemorrhagic cyst with hemoperitoneum in a nearby hospital during which she required transfusions. However, in our cases, both women remained hemodynamically stable and were treated conservatively. Diagnosis of ovulation bleed is likely if patient is in luteal phase that coinciding sexual intercourse which increases risk of excessive bleeding due to vasocongestion together with acceleration-deceleration force that increases intraluminal pressure during coitus may also predispose to injury. The main targets in treatment are to eliminate bleeding source while preserving ovarian function. Surgical approach has always been method of management, however if pain resolved, patient's hemodynamic and hematological status remained stable, conservative approach should be considered as an option. **Conclusion:** Therefore, ovulation bleed causing hemoperitoneum should be considered in childbearing age women same as ectopic pregnancy and ruptured corpus luteal cyst. Getting proper menstrual cycle history is mandatory and history of prior sexual intercourse should alert the gynecologist. Management will be based on hemodynamic stability of patient.