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CASE REPORT

THROMBOCYTOPENIA & RUPTURED CORPUS LUTEAL CYST: A DEADLY COMBINATION: A CASE REPORT

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ABSTRACT: Ovarian corpus luteal cyst occurs during reproductive years, at end of menstrual cycle, or during pregnancy. The presentation of ruptured luteal cyst may vary from no symptoms to symptoms and signs of acute abdomen.[1] Ruptured corpus luteal cyst in some instances causes massive intraperitoneal hemorrhage leading to death in patient,[2] particularly those with bleeding diathesis. Fitzgerald & Berrigan (1959) called it an "ovarian accident"& it is rarely accurately diagnosed before operation.[3] In this case report, we will depict a case of ruptured corpus luteal cyst which became catastrophic for the patient with thrombocytopenia.
KEYWORDS: Corpus Luteal cyst, Acute abdomen, Haemoperitoneum, Thrombocytopenia.

CASE REPORT: A 32 years, married female, $P_2 L_2$, presented to the emergency unit of our hospital, with complaints of abdominal pain for four days following six weeks of amenorrhea. Pain was more over lower abdomen. Her previous menstrual cycles were regular.

At admission she was pale, cold clammy extremities, conscious, but not well oriented, tachycardia of 128 beats/min; hypotension of BP110/50mmHg. There was mild abdominal distension with tenderness & guarding mainly over lower abdomen. On per vaginal examination there was no bleeding, the cervical os was closed, and uterus was normal size with tenderness in right fornix, cervical excitation test negative.

The investigations on emergency basis reveal -Hb-4.8gm%, Blood group - O^{+ve}, Liver & renal function tests were normal, urine for pregnancy-weakly positive. Paracentesis reveals unclotted dark blood confirms haemoperitoneum.

A provisional diagnosis of ruptured ectopic & hemorrhagic shock was made. She had undergone emergency laparotomy in view of haemoperitoneum with haemodynamic unstability.

At laparotomy – haemoperitonium of approximately 2 litre detected consisting of blood & clot. Right sided ovary was cystic & of normal size, showing ruptures at a point with active oozing. Bilateral tubes and left ovary were normal with flimsy adhesion between the posterior surface of the body of uterus & left tube. Right sided salpingo-ophrectomy done. While closing abdomen capillary oozing from wound was present, hence a subcutaneous drain kept, otherwise operation was uneventful. She was transfused 3 units of whole blood in Operation Theatre.

In immediate post-operative period her condition remains poor with pallor, tachycardia, soakage from wound, oozing from venepunctured sites & petechial rashes was noticed over chest & limbs. Report of Coagulation profile was available which reveals-Platelet count-20,000/cumm, bleeding time was prolonged, while Prothrombin Time & the Activated Partial Thromboplastin time were normal and blood smear shows large sized platelets. On enquiring patients' relative give history that she was having few rashes over arm & chest for last one month & one year back she had prolonged bleeding following tooth extraction. Platelet transfusion, FFP transfusion was arranged, injection Vitamin K was given. But the condition of the patient further deteriorated due to continued

bleeding from different sites & gradually became unconscious probably due to spontaneous intracranial hemorrhage. She expired on post-operative day 2. Histopathology report of specimen confirm that it was a case of ruptured corpus luteal cyst. In this case, investigation & history of the patient suggested that thrombocytopenia combined with ruptured corpus luteal cyst turned to be fatal

DISCUSSION: Acute lower abdominal pain, dizziness, fainting attack in a reproductive age group with short history of amenorrhea, the disturbed ectopic pregnancy may be the first provisional diagnosis. A ruptured ovarian cyst can also produce massive hemoperitoneum, with clinical symptomatology and sonographic features that closely mimic those of other disorders, in particular ectopic pregnancy. Hence one should always keep in mind as differential diagnosis. Corpus luteum hemorrhage may occur spontaneously or often triggered by coitus, trauma, exercise, or vaginal examination[4]. It is described more from the right ovary as it is believed that the recto-sigmoid colon helps to protect the left ovary from trauma or it is due to a higher intraluminal pressure on the right side because of the differences in ovarian vein architecture.[4-5]

Ovarian hemorrhage from corpus luteum of pregnancy or non-pregnancy state can be life threatening surgical condition for women with bleeding disorder. There have been case reports of luteal cyst rupture with massive hemoperitoneum during dialysis, thrombolytic therapy, patient with Hb SC disease, liver disease and patient on anticoagulation therapy.[1,6-8] Though there are many case series in the literature on corpus luteal bleeding, corpus luteal bleed related to idiopathic thrombocytopenia was discussed only in a few reports. In this case investigation & history of the patient suggested that thrombocytopenia combined with ruptured corpus luteal cyst turned to be fatal. Case reports have been made of ruptured corpus luteum being the first presentation of underlying bleeding diathesis.[9]

Our patient was suspected to be a case of idiopathic thrombocytopenic purpura (ITP), from the history & blood picture. Idiopathic thrombocytopenic purpura (ITP)-chronic variety affects mainly women in reproductive age group & are of insidious onset & have a chronic course. The diagnosis of ITP remains one of exclusion, where other causes of thrombocytopenia ruled out. The symptoms of ITP varies from the fairly common asymptomatic to frank bleeding from any site. Bleeding tendency increases if platelet count<30,000/cu mm & spontaneous bleeding particularly intra-cranial can occur if count<10,000/cu mm. In the reported case, blood platelet count was significantly decreased to 20,000/cmm with elevated bleeding time. This deranged coagulation profile was the precipitating factor for massive haemoperitoneum following rupture of luteal cyst.

CONCLUSION: Although significant ovulation related ovarian bleeding is rare in healthy women, but it should be kept as a differential diagnosis if a women in reproductive as group presented with acute abdomen mimicking acute ruptured ectopic. The rupture of a corpus luteal cyst carries a considerable risk to women with bleeding diathesis & it should be prevented by inhibition of ovulation in those women on who is suffering from bleeding disorder. Intramuscular injection of DMPA consistently suppresses ovulation.[10] DMPA seems to be safe and effective to suppress ovulation in those women.

To conclude, ruptured corpus luteum causing severe abdominal pain is indeed a diagnostic challenge. This can also be the first presentation of bleeding diatheses, requiring a full work-up. Ovulation suppression can prevent recurrences.

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