

Short Report

Open Access, Volume 2

Abdominal emergency - Acute promyelocytic leukaemia presenting as a corpus luteal cyst

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Abstract

Acute promyelocytic leukaemia (APML) is known to present with disseminated intravascular coagulopathy (DIC) but as a Corpus luteal cyst hemorrhage however, it is rarely seen at presentation. This case is the first to describe a patient with APML who presented with ruptured corpus luteum without ovarian tissue infiltration with blasts, leading to hemoperitoneum posing as life threatening acute abdominal emergency in a woman belonging to child bearing age. The case is a singular case where APL has presented in such a rare manner.

Keywords: Corpus luteal cyst hemorrhage, Acute abdomen, Leukemia.

Received: Feb 04, 2021

Accepted: Mar 12, 2021

Published: Mar 16, 2021

Archived: www.jcimcr.org

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Short report

Acute promyelocytic leukaemia (APL) is known to present with disseminated intravascular coagulopathy (DIC) but as a Corpus luteal cyst hemorrhage however, it is rarely seen at presentation. [1]. A 27 year old female patient was admitted to the hospital with complaints of dizziness, palpitations as an acute abdominal emergency with unstable vitals (Blood pressure 90/58 mm of Hg, pulse rate 128/minute and a febrile). The initial investigations showed hemoglobin level of 8.1 g/dl, total leucocytes count 65,390/mm³, with Blasts+ Promyelocytes- 61%, Myelocytes-12%, Metamyelocytes-11%, Neutrophils- 08%, Lymphocytes-06%, Monocytes-02% and platelet count- 30,000/mm³. Prothrombin time (PT) was 20.2 seconds and INR-1.75. The peripheral blood smear examination was suggestive of acute leukemia (Promyelocytic) and was confirmed on flow cytometry.

The leukemic infiltration of female genital tract was earliest reported in 1933 by Mc Donald and Waugh [2]. Leukemias presenting as spontaneous hemoperitoneum is a rare event and generally involves leukemic cell infiltration of female genital tract [3]. There are few case reports where Acute lymphoblastic leukemia (ALL), Chronic myelogenous leukemia (CML) and other lymphomas have involved female genital tract but there is paucity of literature pertaining to leukemia result in corpus luteal cyst rupture leading to hemoperitoneum without histopathological involvement of female genital tract with leukemic blast cells [4,5]. Our case is a rarest of rare event where APL has presented as bleeding corpus luteal and bleeding ovary.

Corpus luteum cyst is the designation used for a cystic corpus luteum that is more than 3 cm in diameter. Corpus luteum is a thick walled cystic structure that is prone to internal hemorrhage and sometimes with intra abdominal hemorrhage. Occasionally

Citation: Kaur B, Fayyaz S. Abdominal emergency - Acute promyelocytic leukaemia presenting as a corpus luteal cyst. *J Clin Images Med Case Rep.* 2021; 2(2): 1027.

these follicles may bleed into ovary causing cortical stretching, pain, rupture and rarely hemoperitoneum.

The patient presenting with acute abdominal pain and unstable vitals, she was administered 2 units of Packed red cell (PRC), one single donor platelet (SDP) and 1 Fresh frozen plasma (FFP) prior to diagnostic laparoscopy which revealed ovary as source of bleed harboring hemorrhagic corpus luteum cyst which was managed by unilateral oophorectomy and tubectomy. The hemorrhagic corpus luteal cyst is shown in the figures 1 to 3.

This case is the first to describe a patient with APML who presented with ruptured corpus luteum, leading to hemoperitoneum posing as life threatening acute abdominal emergency in a woman belonging to child bearing age.

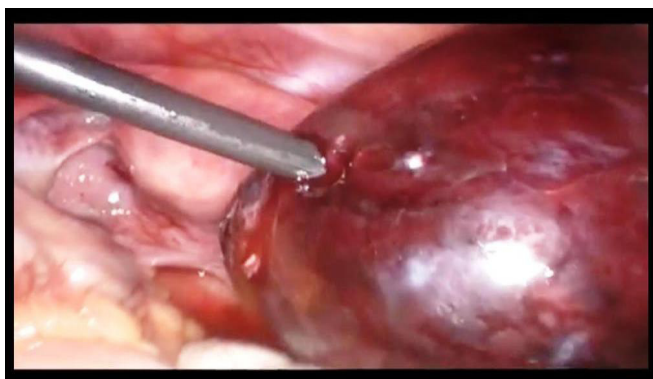


Figure 1: Corpus luteal cyst.

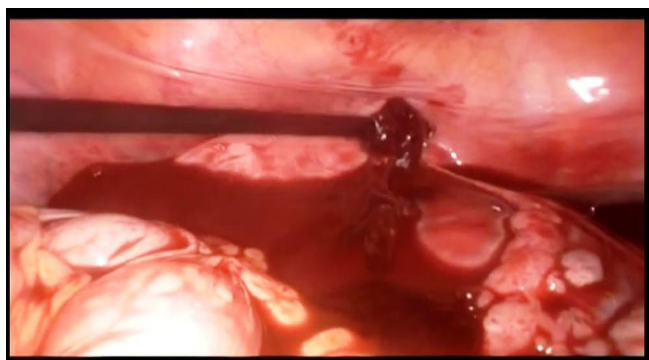


Figure 2: Removal of cyst.

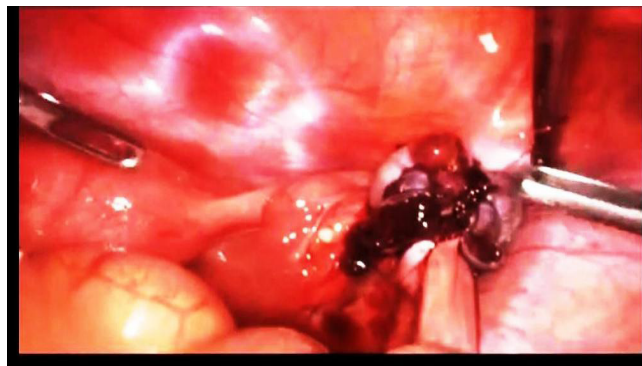


Figure 3: Cyst removed Laproscopically

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