

International Journal of Medical Science and Clinical Inventions

Volume 1 issue 9 2014 page no. 452-454 ISSN: 2348-991X Available

Online At: <http://vallevinternational.net/index.php/our-jou/ijmsci>

Life Threatening Bilateral Corpus Luteal Bleed Due To Warfarin Toxicity –A Rare Case Report

S.K.Jain¹, Vandana Jain², Mayank Shrivastav³, Siddharth Choudhary⁴, K M Garg⁵

Department of Gen surgery, Mahatma Gandhi medical college and hospital, Jaipur, India

Email id: skjain4dch@yahoo.co.in

Abstract :

Warfarin a coumarin derivative, is commonly used in prevention and treatment of thromboembolic events in various clinical situations. Although a safe drug, its toxicity may result into spontaneous intraperitoneal or ovarian bleed. A case is reported here of a patient who presented with massive haemoperitoneum due to bilateral corpus luteal haemorrhage secondary to warfarine toxicity. She had undergone mitral valve replacement surgery 10 yrs back and was on warfarin. Imaging suggested a pelvic mass mimicking ruptured ovarian tumour. Her PT/INR was 3.5 at the time of admission. Laparotomy revealed massive haemoperitoneum (3Ltr) with bilateral ovarian bleed which is very rare and no such case of bilateral ovarian bleed is traceable in searched literature.

Key words: Bilateral corpus luteal bleed, haemoperitoneum, warfarin toxicity, PT/INR

Introduction

Ovulation is a physiological monthly event in women of reproductive age. Corpus luteal haemorrhage may occur spontaneously or is often triggered by coitus, trauma, exercise or vaginal exam¹. The risk of haemorrhagic complications of ovulation start on the ovulatory day and extends throughout corpus luteal life span which is 14 days. Its presentation is variable depending on the extent of the haemorrhage but it can be massive requiring surgical intervention. Patients on anticoagulation are at higher risk for significant severe haemorrhage from ruptured corpus luteum (B). In our case this was bilateral.

Case Report

A 35 yr. old female presented with oliguria and vague abdominal pain and difficulty in passing motion of 3 to 4 days duration. No history of vomiting, loose motion, fever. LMP was 2

weeks ago. She had a history of mitral valve replacement done 10 yrs back and she was anticoagulated with warfarine 3 mg/day. She

looked sick and anaemic. On per abdomen examination mild guarding were present in lower abdomen with mild abdomen fullness. Her Pulse 94 per min and BP was 100/70. RFT/LFT were normal except hb 9gm%. PT/INR was 3.5. USG showed moderate ascites with irregular mass behind uterus. On paracentesis it was blood. UPT was done to rule out ectopic pregnancy which was negative. So preoperative diagnosis of ruptured ovarian tumour was made. Patient was shifted to ICU for observation. 8 unit FFP and 3 unit blood transfused and vit k given. Warfarin was stopped. The patient kept on conservative management. Repeat PT(INR) was 2.5. Despite treatment within the next 17 hours the patient's condition further deteriorated. Her pallor increased, output decreased and Hb dropped to

4.0gm%. Abdomen became tense and distended. So immediately laparotomy was planned in spite of PT/INR 2.5, with high risk consent. On exploration massive haemoperitoneum(2.5ltr) was found. Left ovarian corpus luteal cyst was ruptured, bleeding and surrounded by clots for which oophorectomy was done. Right ovarian corpus luteal cyst was also ruptured and was bleeding for which suturing was done. Postop recovery was uneventful. Warfarine started after five days on 2 mg/day for prophylaxis Patient was discharged after 12 days. In 6 months followup patient was doing well and PT INR was between 2 to 2.5.on warfarin.HPE report was ruptured left corpus luteal cyst.

Discussion

Corpus luteum rupture is one of the differential diagnosis of acute abdomen in women of reproductive age. Although it can occur at any time of life, it is likely to develop in the early period after menarche³. Though there are many case series in the literature on corpus luteal bleed^{2,4,5}. But bilateral corpus luteal bleed has not been reported yet, as it is not traceable in searched literature. Most of the earlier reports have resorted to options like salpingo-oophorectomy in the past or medical management⁵. This case report highlights the difficulties in diagnosing especially if they present with oliguria and pain abdomen. It is described more from the right ovary as it is believed that the rectosigmoid colon helps protect the left ovary from trauma⁴ or it is due to a higher intraluminal pressure on right side because of the differences in ovarian vein architecture¹. The accurate diagnosis depends on the clinical presentation, imaging and biochemical and haematological workup and keeping a high index of suspicion of haemorrhage in patients on anticoagulant therapy. Urine pregnancy test is important to exclude ruptured ectopic pregnancy. This patient was an adult female with a mechanical mitral valve on anticoagulation.

Although the incidence of ovulation bleed or corpus luteal haemorrhage in general population is not known, it appears that women on anticoagulation tend to suffer more severe

haemorrhage². In this population corpus luteal haemorrhage can be fatal in 3 to 11%⁶ of cases and can recur in nearly 25 to 31%^{1,7} even when INR is within or below the therapeutic range². In some cases conservative management is possible if the diagnosis is accurate and patient remains stable. Besides close observation periodic repeat haematological investigations, analgesia and correction of coagulation, replacement of blood and products and cardiopulmonary support might be required. Surgical intervention might be necessary if other causes of acute abdomen are suspected, if patient is unstable, or if the bleeding fails to settle on conservative management in a reasonable time. In our case because of bilateral ovary bleed patient became rapidly unstable.

Laparotomy is the standard approach in an unstable patient, although the role and feasibility of laparoscopy in unstable patient with ruptured ovarian cyst is recently described⁸. Laparoscopy is likely to increase as more surgeons are experienced in such situations. Ovarian electrocoagulation, cystectomy, wedge excision, and ovarian reconstruction are conservative methods to secure haemostasis. Women on anticoagulation tend to require oophorectomy more as compared to those not receiving anticoagulation².

As in our case, finding safe, effective and acceptable method to inhibit ovulation in women on anticoagulation for mechanical heart valve is a challenge. The increased risk of venous and arterial thrombosis in women using combined oral contraceptives (COC) in the general population has been extrapolated to those women despite the lack of strong evidence. Though some experts have recommended the use of low estrogen containing COC 's to prevent corpus luteal haemorrhage in patients who are well anticoagulated⁹. World health organization, states that combined contraceptives (oral, injectable, patches, rings) are deemed unsuitable for use in women who are currently anticoagulated¹⁰. Although there are many methods of effective contraception but not all are effective ovulation inhibitors. Progestin only pill like oral desogestrel consistently inhibits ovulation, whereas norethindrone acetate of 0.35 mg inhibits ovulation only in 30% of the

times¹¹. Intramuscular injection of DMPA (depot medroxy progesterone acetate) consistently suppresses ovulation¹².

Conclusion

Patients with toxicity to warfarin therapy may present with a clinical picture of acute abdomen due to haemoperitoneum. Proper history, clinical, haematological and radiological evaluation is necessary for confirmation of diagnosis before any surgical intervention is planned. Warfarin related toxicity is treated by withholding the drug, transfusion of FFP, vit k and subsequent readjustment of the dose of warfarin. Since the incidence of cardiac surgeries is on the rise and so is the use of anticoagulation drugs in these patients, a high index of suspicion must be kept in mind in patients presenting with acute abdomen with haemoperitoneum. Such type of episodes should be prevented by inhibition of ovulation in women on anticoagulation who suffered a significant bleed. DMPA seems to be safe and effective contraceptive to suppress ovulation in these women.

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