A 34-year-old female presented with abdominal pain and distension. Emergency surgery and the ideal time to restart anticoagulation therapy after such cases have been managed by both surgical as well as conservative approach. Early diagnosis and appropriate therapy significantly reduce morbidity and mortality associated with this condition. We hereby report successful management of ruptured corpus luteal cyst with massive hemoperitoneum due to unmonitored oral anticoagulant intake in view of thromboembolism.

**INTRODUCTION**

Long-term anticoagulation is required in patients with venous thromboembolic complications. In such cases, a target international normalised ratio (INR) has to be maintained for anticoagulation to prevent thromboembolism which needs to be balanced carefully to avoid hemorrhagic complications, owing to narrow therapeutic index of vitamin K antagonists. There is a lot of controversy and ambiguity regarding the type of treatment required to reverse anticoagulation for emergency surgery and the ideal time to restart anticoagulation therapy safely.

**Case report:**

A 34-year-old female presented with abdominal pain and distension with petechial rashes all over the body. She had history of intake of warfarin and injection enoxaparin in view of pain and swelling in right leg. Patient was shifted back when she was diagnosed with deep venous thromboembolism. She had pallaor with tachycardia and hypotension. Past history of an episode of postpartum DVT in right leg 8 years back for which she received warfarin therapy for 3 months. Investigations showed HB -7.3 gm%, TLC-17000, D L C - 80/15/4/1, APC- 4 lac/mm3, PT-107, INR-9.1. Urine pregnancy test was negative, ultrasound abdomen showed hypechoic lesion of 16x12x11 in right adnexa showing ring of re pattern suggestive of corpus luteum cyst or ruptured ectopic. Free fluid 3+ was seen in mornisons pouch, perihaptic and perisplenic region. Emergency laparotomy under general anesthesia was performed on the same day with intraoperative blood loss of 1.5 litres. She was transfused two units of packed cell volume and four units of fresh frozen plasma. At the end of the surgery, patient was extubated and maintained normal vitals but next day she developed respiratory distress with tachypnoea, tachycardia and falling oxygen saturation with bilateral crepts in the end of the surgery, patient was extubated and maintained normal vitals but next day she developed respiratory distress with tachypnoea, tachycardia and falling oxygen saturation with bilateral crepts in the abdomen. Signs of peritonitis on examination have led to the erroneous diagnosis of ruptured ectopic, acute appendicitis and salpingitis. Colon. Signs of peritonitis on examination have led to the erroneous diagnosis of ruptured ectopic, acute appendicitis and salpingitis. Colon. Signs of peritonitis on examination have led to the erroneous diagnosis of ruptured ectopic, acute appendicitis and salpingitis.

A dedicated monitoring to much extent but at the same time they can have significant bleeding diathesis requiring emergency interventions. A dedicated monitoring of coagulation profile in patients on long term anticoagulation is needed to prevent bleeding diathesis. These may present as hematuria, epistaxis, menorrhagia, GI bleed, intracranial bleed and ovarian hemorrhage due to rupture of follicle or corpus luteum. Ovarian hemorrhage with hemoperitoneum related to rupture of corpus luteum is a rare but serious complication of chronic anticoagulation therapy. Patients of corpus luteal hemorrhage usually present with complaints of sudden abdominal pain, most often on right side as left ovary is being protected from trauma by recto-sigmoid colon. Signs of peritonitis on examination have led to the erroneous diagnosis of ruptured ectopic, acute appendicitis and salpingitis. Detailed history, clinical examination, lab investigations & radiology, negative pregnancy test and high index of suspicion are tools of accurate diagnosis.

**DISCUSSION:**

Ovarian hemorrhage with hemoperitoneum related to rupture of corpus luteum is a rare but serious complication of chronic anticoagulation therapy. Patients of corpus luteal hemorrhage usually present with complaints of sudden abdominal pain, most often on right side as left ovary is being protected from trauma by recto-sigmoid colon. Signs of peritonitis on examination have led to the erroneous diagnosis of ruptured ectopic, acute appendicitis and salpingitis. Detailed history, clinical examination, lab investigations & radiology, negative pregnancy test and high index of suspicion are tools of accurate diagnosis. A standard algorithm is not described for management of such patients. Treatment is aimed at eliminating the source of bleeding and preserving the ovaries. Early diagnosis is crucial because most patients can be treated conservatively with good outcome. In modern era with the help of highly sensitive diagnostic tools early accurate diagnosis and conservative management of these patients is possible up to great extent. Operative intervention is required in circulatory collapse, unstable cases or where other causes of acute abdomen are in mind or patient fails to settle on conservative management.

The conservative modality is aimed to evaluate or replace vitamin K continued. CT pulmonary angiography and echocardiography were normal. Serial INR monitoring was done. After 4 days, patient was shifted back from ICU to ward with normal vitals and clear chest with an INR of 1.21. Injection enoxaparin was stopped and patient was discharged on tablet warfarin 2 mg OD with follow up in OPD at regular intervals.
dependent clotting factors and to stop warfarin immediately. Although vitamin K is the treatment of choice but higher doses may lead to warfarin resistance. Fresh frozen plasma is widely acceptable and provides fast partial reversal of the coagulopathy through the replacement of exogenous factors II, VII, IX and X. The advantages of recombinant factor VII use include INR correction within hours, rapid administration, smaller infusion volume and decreased risk of transfusion associated adverse reactions. Usually these corpus luteal hemorrhages are self-limiting and respond to these measures.

CONCLUSION:
Hemoperitoneum due to ruptured corpus luteum may be confused with ectopic pregnancy due to similar clinical presentation and sonography picture but may be ruled out due to normal βHCG. In patients on anticoagulant therapy with spontaneous massive hemoperitoneum, coagulation disorders should be ruled out. If there is any altered coagulation profile supportive treatment with transfusion of blood and fresh frozen plasma may be sufficient or surgery may be needed.

REFERENCES: