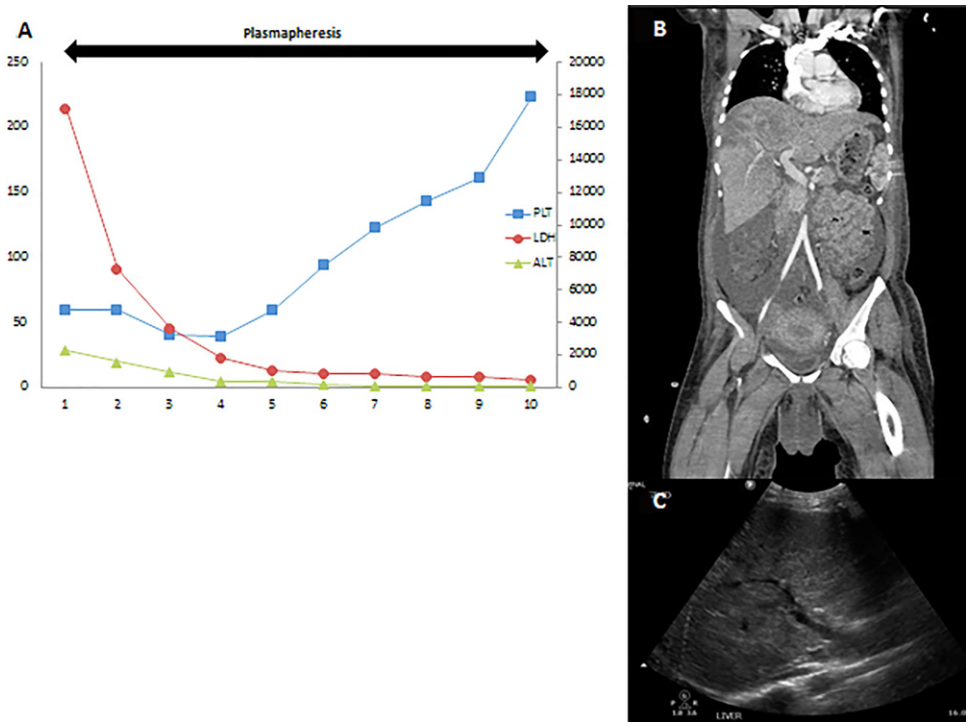

Fig. 1. A: ALT, LDH and PLT improvement as plasmapheresis is performed. B: Contrast computed tomography showing liver heterogeneous texture (lobes 7,8) and marked ascites and vulvar edema. C: Liver Ultrasound showing heterogeneous texture of the liver compatible with HELLP syndrome.

Disclosure of interests

None.

Contribution to authorship

All authors participated and contributed to data collecting, literature review and editing the report.

Details of ethics approval

A signed confirmation ofpermission form is available from the patient.

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Successful angioembolization treatment in a patient with a mechanical heart valve with hemorrhagic corpus luteum

Dear Editor,

A 23 year-old nulliparous patient presented to our emergency department due to lower abdominal pain lasting for 3 weeks with aggravation two days prior to her admission after coitus. Her history was remarkable for prosthetic aortic valve replacement 4 years ago due to regurgitating congenital bicuspid aortic valve. She was recently switched from warfarin treatment to enoxaparin, a low molecular weight heparin, as the patient was trying to conceive. At presentation, the patient was in severe pain. The physical examination was remarkable for tachycardia (135 beats per minute), bloated lower abdomen, and considerable tenderness at lower abdomen. An ultrasonography demonstrated a large amount of fluid in the abdomen with diffuse blood clots and a corpus luteum in the left ovary surrounded by blood clots. Her

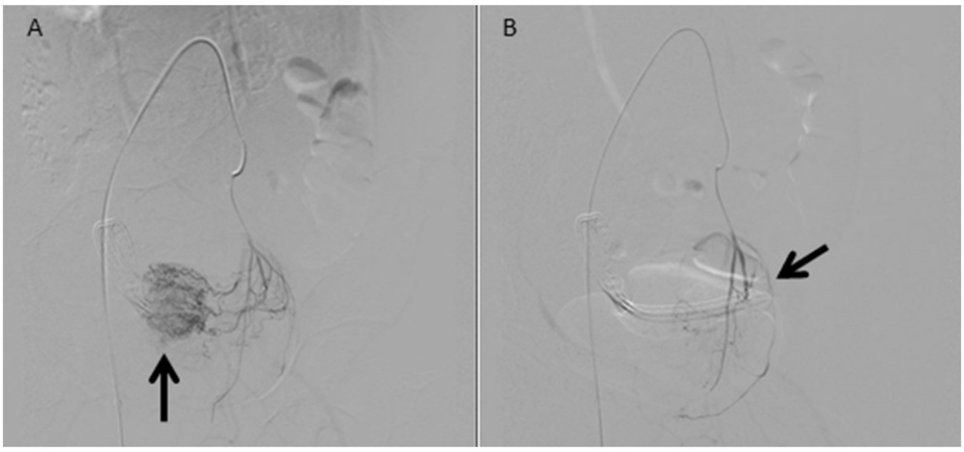

Fig. 1. A: Angiography showing hyperemic left ovary (arrow). B: Occluded left uterine artery after embolization (arrow).

laboratory results were remarkable for normal hemoglobin level of 12.6 g/dl with anti-factor Xa 0.45 U/mL (therapeutic range 0.5–1 U/mL). As the patient's blood pressure and hemoglobin were within normal range, she was admitted for observation in the ICU withholding anticoagulation or heparin reversal. During the observation, her hemoglobin dropped to 9.1 g/dl, and she became hypotensive (80/45 mmHg) we opted for emergent laparoscopy after loading dose of protamine sulfate 50 mg. On laparoscopy 1500 ml of clotted and fresh blood were evacuated, a corpus luteum non actively bleeding was identified and the abdomen was closed after installation of Jackson-Pratt drain. During the procedure, 5 units of packed cells and fresh frozen plasma each were transfused. During the early postoperative recovery in the ICU, as an amount of 350 ml was evident in the drain after a4-hour duration with an hemoglobin level of 7.0 g/DL in the drained fluid, an active bleeding was supposed and we opted for angiography. A hyperemic left ovary was remarkable with no active bleeding (Fig. 1A). An embolization of the left uterine artery was performed using Gelfoam microspheres (Upjohn; Kalamazoo, MI) (Fig. 1B). Following the angiographic procedure, the patient maintained hemodynamic stability, no further tachycardia and no fresh fluid draining.

Corpus luteum is a functional ovarian cyst which isa relatively common among women of reproductive age. While most corpus luteum cysts cause minimal or no symptoms and resolve spontaneously some can rupture causing massive hemoperitoneum and a life-threatening surgical condition [1,2]. The current management of ruptured corpus luteum is a conservative management in hemodynamically stable patients, without severe abdominal pain and in the presence of small amount of pelvic fluid. Surgical management, usually laparoscopy, should be performed in those with hemodynamic instability, substantial abdominal pain and/or when a large amount of free fluid in seen in the abdomen [2]. It has been suggested that ovarian hemorrhage is a frequent complication of anticoagulant therapy [3]. Surgical management has been the traditional approach in managing these patients, however, conservative management was also suggested in a carefully selected patients [3,4]. Those opted for surgical intervention, should be stabilized with transfusion of blood products and reversal of anticoagulation coupled with a surgical intervention. As our patient was presented with blood pressure within normal limits, we first observed the patient. As the patient further deteriorated and developed signs of hemorrhagic shock, we opted for surgical management with anticoagulation reversal as suggested. As bleeding recurred after the laparoscopic procedure, a novel, not yet reported management of hemorrhagic corpus luteum [5], angiographic embolization of the ipsilateral uterine artery, was performed successfully.

Physicians caring for women on anticoagulants should be on the alert for this life-threatening complication, and management should be decided upon clinical and imaging information. Angiography should serve as a potential approach when surgical treatment failed.

Contribution to authorship

All authors participated and contributed to data collecting, literature review and editing the report.

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Details of ethics approval

A signed confirmation of permission form is available from the patient.

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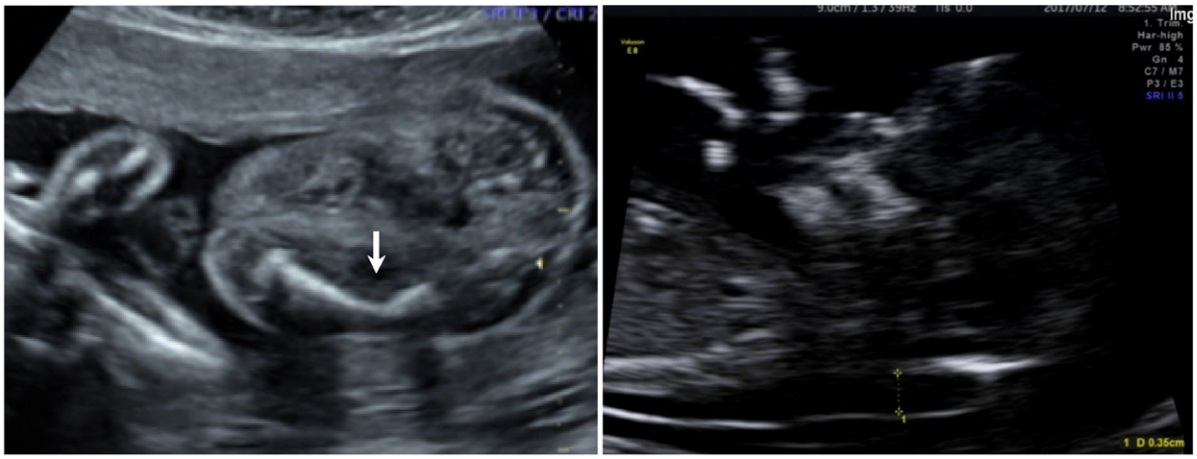
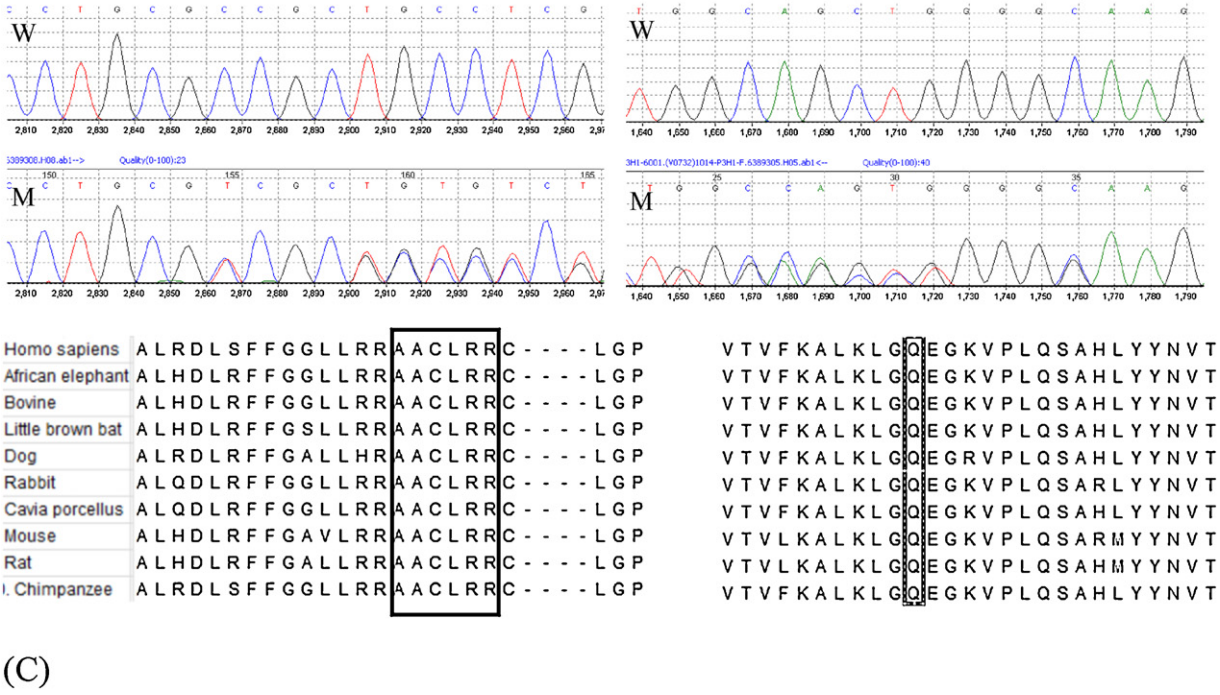
Osteogenesis imperfecta type VIII: Association with increased nuchal translucency and prenatal diagnosis by targeted exome sequencing

Dear Editors

Osteogenesis imperfecta (OI) is a genetically heterogeneous skeletal dysplasia that affects approximately 1 in 10,000–20,000 births [1]. Although most of the time prenatal diagnosis of OI can be confirmed by molecular testing, sonography is still the primary diagnostic modality. Criteria for the prenatal diagnosis of OI using second-trimester sonography include hypomineralization of the skull, early onset of bone shortening, and bowing due to multiple fractures involving long bones. However, the sonographic detection of OI at the first trimestr of pregnancy is challenging. Here we



(A) (B)



(C)

Fig. 1. The prenatal ultrasound, Sanger sequencing data and conservation of the amino acid residues around the variants sites. (A) Bowing of femur at 23 weeks; (B) Increased NT at 12 weeks; (C) Sanger sequencing shows heterozygous c.345_362dup and c.1576delC variants. The box shows changes in the conserved residues.