

Threatened Miscarriage Resulting in Disseminated Intravascular Coagulopathy (DIC)

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ABSTRACT

Background: This is a case of 23-year-old lady 13 weeks DCDA twin pregnancy admitted with vaginal bleeding.

Case: Her trans-abdominal sonogram detected sub-chorionic hematoma that keeps increasing in size during her admission and her blood reports revealed a full blown picture of DIC. Termination of pregnancy by Dilatation and evacuation was done after initial resuscitation with fresh frozen plasma, platelet concentrates, cryoprecipitate and fibrinogen. She had an uneventful recovery period.

Conclusion: DIC is an extremely life-threatening condition which can occur as a very infrequent complication of threatened miscarriage.

INTRODUCTION

Primigravida, dichorionoc diamniotic (DCDA) multiple pregnancy after ovulation induction with threatened miscarriage resulting in life threatening disseminated intravascular coagulopathy (DIC).

CASE REPORT

A 23 year old Asian primigravida diagnosed as threatened miscarriage since 6 weeks pregnancy following ovulation induction conception (due to social reasons) after only 4 months of actively trying to conceive. She has no significant past medical history.

She later on presented at 13 weeks with heavier vaginal bleeding and was admitted to the hospital. Ultrasound examination showed viable dichorionic diamniotic twin pregnancy (DCDA) with sub-chorionic hematoma which was increasing in size till it occupied the whole gestational sac (**Figure 1,2,3,4,5,6**).

The pregnancy was viable despite the heavy bleeding and the increase in hematoma size, however the patient developed DIC which was proved by lab investigations that showed increased PT/PTT, low hemoglobin, low hematocrit, low fibrinogen, elevated D-Dimer with thrombocytopenia.

She was offered termination of pregnancy, however she was very keen to continue with the pregnancy, she received multiple blood transfusions but she had continuous vaginal bleeding.

The DIC became worse and finally after extensive counseling she agreed for termination of pregnancy.

She had surgical evacuation of the pregnancy followed by insertion of bakri balloon, Intra- operative blood loss was 1500 ml, and she received 10 units of fresh frozen plasma, 10 units of cryoprecipitate, 6 units of platelets, 2 grams fibrinogen and she was kept in the ICU for 1 day.

Bakri balloon was removed on day 2 and the patient was discharged on day 3 post- operative on oral iron.

Her follow up after 4 weeks was unremarkable.



Figure 1: The pregnancy showing the hematoma on the left twin sac



Figure 2: Sub chorionic hemorrhage along left twin placenta

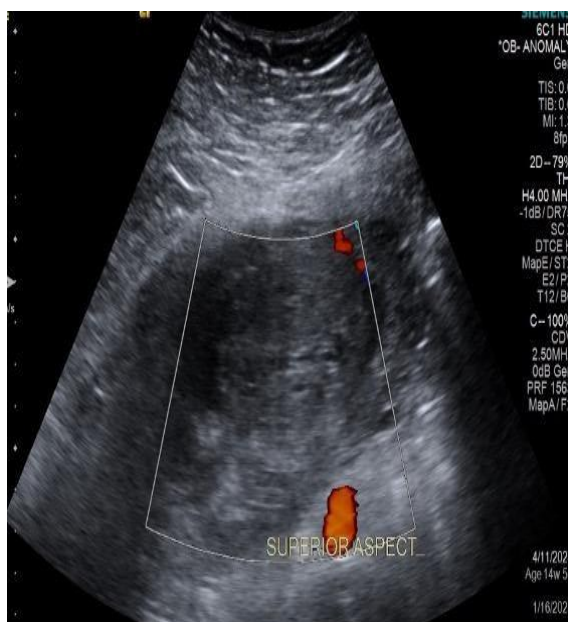


Figure 3 and 4: The Hematoma with color Doppler



Figure 5 and 6: The hematoma almost obliterating the gestational age

DISCUSSION

Disseminated intravascular coagulation (DIC) is an acquired syndrome characterized by the intravascular activation of coagulation with loss of localization arising from different causes. It can originate from and cause damage to the microvasculature, which, if sufficiently severe, can produce organ dysfunction ^[1]. The resultant clinical condition is characterized by intravascular coagulation and hemorrhage. The affected person is often acutely ill and shocked with widespread hemorrhage (common bleeding sites are mouth, nose, and venepuncture sites), extensive bruising, renal failure, and gangrene. DIC usually presents as an acute, often catastrophic, acquired hemorrhagic tendency. Rarely can it also manifest as a low-grade disorder with predominantly thrombotic manifestations ^[2].

Disseminated Intravascular Coagulation Syndrome develops in approximately 0.03-0.35% of pregnancies overall and has a reported prevalence of 12.5 per 10,000 delivery hospitalizations ^[3]. The prevalence of pregnancy-associated DIC is low, patients with specific pregnancy complications, such as amniotic fluid embolism or placental abruption as in this patient (presented as sub-chorionic hemorrhage), can be at very high risk with a prevalence of >20% ^[4].

DIC is characterized by a concomitant over-activation of the coagulation and fibrinolytic systems, ^[5]. Leading to widespread micro vascular thrombosis, disruption of blood supply to different organs, ischemia, and multi-organ failure. This extensive activation of the coagulation cascade leads to consumption and depletion of platelets and coagulation proteins, which can provoke concurrent severe bleeding ^[6]. of note, obstetric DIC more typically presents with bleeding complications, rather than thrombotic complications

Early pregnancy bleeding remains a cause for maternal morbidity and mortality if not managed carefully and can be complicated by DIC. Case selection for ovulation induction should be based on strict criteria and should only be considered in cases where there has been proven subfertility as per national and international guidelines.

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