

Intrauterine Fetal Demise (IUFD) complicated by Disseminated Intravascular Coagulation (DIC) leading to ischemic stroke with hemorrhagic transformation: a case report

Abdal-Aziz El-Hussain MD, Anuradha Borle MD

Division of Obstetric Anesthesiology, Department of anesthesiology, Washington University in St. Louis

Background

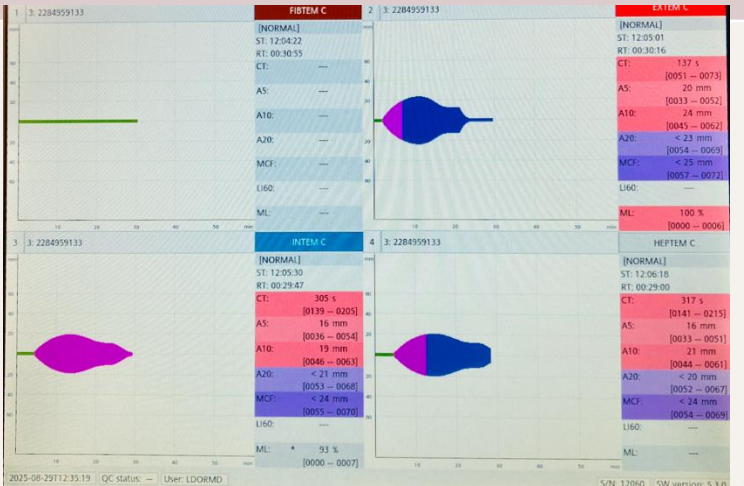
- Disseminated intravascular coagulation (DIC) is defined as an acquired, life-threatening condition involving systemic coagulation activation, impaired fibrinolysis, and endothelial injury. ISTH
- Characterized by widespread bleeding and thrombosis.

Commonly described causes of DIC in obstetrics.

Amniotic fluid embolism
Intrauterine foetal demise
HELLP syndrome
Pre-eclampsia/eclampsia
Placental abruption and placenta praevia
Septic abortion and intrauterine infection
Postpartum haemorrhage
Acute fatty liver of pregnancy

Case Presentation

History	Intra-op	Post-op
- A 37-year-old G8P6 with a history of substance use disorder presented with decreased fetal movement and was diagnosed with IUFD at 14 weeks. - She missed her appointment, but was ultimately admitted 12 days later for a D&C. - On admission, informed consent was obtained for monitored anesthesia care with backup general anesthesia.	- Intraoperatively, the SpO₂ dropped to low 80s, became tachycardic but remained hemodynamically stable, so bag-mask ventilation was initiated. - On emergence, a nasal trumpet. Bleeding was noted around the nasal airway, under the drapes, and via the Foley catheter. - The patient's airway was secured, laboratory studies were sent including ROTEM, MTP was activated.. Patient received 3 units PRBCs, 1 unit FFP, 3g fibrinogen, and 1g of TXA.	- The patient was subsequently transferred to the ICU and extubated after 2 days. She was subsequently found to have right-sided weakness, and was diagnosed with acute left ICA/MCA thrombus. - A decision was made to proceed with mechanical thrombectomy, which was complicated by edema and petechial hemorrhages requiring hemicraniectomy. - She had a complicated hospital course but was eventually discharged to a rehabilitation facility.



Discussion

- DIC during pregnancy constitutes one of the leading causes for maternal mortality worldwide, and its rates varies 0.03% - 0.35%.
- DIC in the setting of IUFD is a rare but life-threatening medical complication that requires prompt identification and management.
- It is defined as a consumptive coagulopathy caused by the contact of tissue factor with circulating blood. This causes a cascade leading to the activation and consumption of coagulation factors.
- The treatment for DIC necessitates treating the underlying disorder.
- Rotational thromboelastometry (ROTEM) may be able to indicate whether a patient has a hypocoagulable or hypercoagulable profile and usefull for real-time data for supportive treatment.