

A Rare Case of Recurrent Disseminated Intravascular

Coagulopathy Postpartum

H. Olaosebikan*, S. Senaratne*



Introduction

Disseminated Intravascular Coagulopathy

Is a haematological condition precipated by multiple factors, that results in a wide spread coagulopathic state with microvascular and macrovascular clot formation, resulting in excessive uncontrolled bleeding and multi-organ dysfunction.

Background

*Postpartum Haemorrhage secondary to DIC is a severe obstetric complication that remains a threat to maternal survival.

*Not enough is known about secondary PPH due to recurrent DIC.

Patient

*38yo woman , G4P3 *3 previous uncomplicated spontaneous vaginal deliveries *Presented to a tertiary centre @ 37+4 weeks gestation with blood stained SROM, contracting with severe abdominal pain in beteween contractions.

Situation

*Spontaneous rupture of membranes @ 37 weeks, associated with brisk PV

Outcome

 *Initially settling in ICU, requiring ongoing management of hypertension, HELLP syndrome confirmed and likely cause of placental abruption.
*Recurrence of PV bleeding on day 10 post-op, decision to transfer back to O&G tertiary hospital for management of secondary PPH.
*Unstable on arrival, CODE BLUE called, transferred straight to OT for insertion of Bakri balloon, further EBL of 4.5L, requiring correction of coagulopathy with significantly abnormal ROTEM. 6units PRC, 4 units FFP; 1 unit Platelets.



Bleeding and Significant abdominal pain. The modynamically unstable. *CODE BLUE Caesarean Section called.

ajor placental abruption confirmed intra-op.

Massive blood loss - total estimate 4L.

*Managed with marsive transfusion protocol- 15units Cryoprecipitate, 4units PRC, 1 unit platelets, Fibtem on ROTEM at the time being 4mm. *Transferred to ICU in alternate hospital for concern for need for haemodyalisis with significant AKI developing secondary to Acute tubular necrosis form

with significant AKI developing secondary to Acute tubular necrosis form massive haemorrhage.

*Ongoing bleeding through Bakri- further 1.5L loss, proceeded to life saving hysterectomy.

*The final diagnosis was DIC mediated by a massive placental abruption secondary to Pre-eclampsia, recurring post-partum with likely Microangiopathic haemolytic anaemia(MAHA), and suspicion of haemolytic uraemic syndrome(HUS).

Discussion

*There is no existing reporting regarding the recurrence of DIC In the postpartum period.

*It is a rare but potentially fatal phenomena that the clinician must ensider when managing secondary PPH.

*In this case, this patient was fortunate and had a full recovery due to prompt management, diagnosis and decision making. *Suspicion of DIC led to early involvement of the Haematology and Physician teams in patient management, and contributed to effective control of the complications of DIC.

Conclusion

*In the setting of a tertiary women's hospital, recurrent DIC was readily suspected and managed. *However, in a lower resourced situation, a delay in diagnosis could be fatal.
*This case highlights the need to consider this rare diagnosis and act early with regards to a multidisciplinary team approach to management.

References

Brown M, Hong M Jr, Lindquist J. Uterine Artery Embolization for Primary Postpartum Hemorrhage. Tech Vasc Interv Radiol. 2021 Mar;24(1):100727. doi: 10.1016/j.tvir.2021.100727. Epub 2021 Apr 16. PM1D: 34147194.

ames AH, McLintock G, Lockhart E. Postpartum hemorrhage: when uterotonics and sutures fail. Am J Hematol. 2012 May:87 Suppl 1:S16-22. doi: 10.1002/ajh.23156. Epub 2012 Mar 19

PMID: 22430921.

Swaminathan N, Sedhom R, Shahzad A, Azmaiparashvili Z. Post-partum occurrence of Wunderlich syndrome and microangiopathic haemolytic anaemia (MAHA): a case report. J Gommunity Hosp Intern Med Perspect. 2021 Mar 23;11(2):277-279. doi: 10.1080/20009666.2021.1883812. PMID: 33889338; PMCID: PMC8043530.

*Offer Erez, Disseminated intravascular coagulation in pregnancy: New insights,Thrombosis Update, Volume 6, 2022, 100083, ISSN 2666-5727, https://doi.org/10.1016/j.tru.2021.100083. (https://www.sciencedirect.com/science/article/pii/S2666572721000523) * Goksever Celik H, Celik E, Ozdemir I, Ozge Savkli A, Sanli K, Gorgen H. Is blood transfusion necessary in all patients with disseminated intravascular coagulation associated postpartu hemorrhage? J Matern Fetal Neonatal Med. 2019 Mar;32(6):1004-1008. doi: 10.1080/14767058.2017.1397125. Epub 2017 Nov 7. PMID: 29065752.

* Rattray DD, O'Connell CM, Baskett TF. Acute disseminated intravascular coagulation in obstetrics: a tertiary centre population review (1980 to 2009). J Obstet Gynaecol Can. 2012 Apr;34(4):341-347. doi: 10.1016/S1701-2163(16)35214-8. PMID: 22472333.

*M. Belfort, C. Lockwood, D. Hepner, L. Leung, L, Uhl, V. Barss. Disseminated intravascular coagulation (DIC) during pregnancy: Management and prognosis, UPTODATE, retrieved from https://www.uptodate.com/contents/disseminated-intravascular-coagulation-dic-during-pregnancy-management-and-prognosis/contributors.

*Costello RA, Nehring SM. Disseminated Intravascular Coagulation. [Updated 2023 Jan 20]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK441834/

Differences in coagulopathy indices in patients with severe versus non-severe COVID-19: a meta-analysis of 35 studies and 6427 patients - Scientific Figure on ResearchGate. Available from: https://www.researchgate.net/figure/Pathogenesis-of-disseminated-intravascular-coagulation-DIC-is-characterized-by-systemic_fig1_351633125 [accessed 4 Mar, 2024]

*King Edward Memorial Hospital, Subiaco, WA