

Idiopathic Massive Fetomaternal Haemorrhage Resulting in Intra-Uterine Fetal Demise in a Twin Pregnancy: A Case Study

Dr Cassandra Harrison (MD)¹, Dr K Sivanesan (FRANZCOG, FRCOG)¹

¹ Obstetrics and Gynaecology, Ipswich Hospital

West Moreton Health

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Introduction

Massive fetomaternal haemorrhage (FMH) is a rare event that can lead to catastrophic outcomes for mothers and neonates.

The aim is to present a case of massive FMH resulting in unfortunate intra-uterine fetal demise (IUFD).

Case

A 27-year-old female, G2P1 36+3 with a dichorionic-diamniotic (DCDA) twin pregnancy. The patient was known to be Rhesus negative. History revealed well-controlled chronic hypertension, increased BMI, and one previous normal vaginal delivery at term. She presented with history of reduced foetal movements (RFM) without any preceding trauma, nor associated PV bleeding or pain. On arrival Twin 2 was found to be demised. Investigations revealed a Kleihauer of 100.2mL - suggestive of massive FMH. She underwent an emergency caesarean section that same day, and Twin 1 was delivered safely. The placenta histopathology was unremarkable with no evidence of placental abruption.

Discussion

In keeping with the case presented, the most common presenting complaint for FMH is decreased fetal movements, although, some cases are asymptomatic. The threshold for defining massive FMH varies in literature between 30-150mL, or otherwise has been described as representing more than half of the fetal blood volume, or 20mL/kg of fetal weight due to association with significant fetal or neonatal morbidity or mortality at this volume¹. Massive FMH is estimated to affect around 0.3-1/1000 births and represents the cause of 3-4 percent of all intrauterine fetal deaths and 0.04 percent of all neonatal deaths². Although FMH resulting in IUFD is rare, performing a Kleihauer test when history is otherwise unremarkable is vital to detecting FMH³.

Conclusion

This case presents as a dual reminder for clinicians to be vigilant in assessing maternal complaint of RFM and ensure a Kleihauer is performed in cases of otherwise unexplained stillbirth. Whilst FMH is rare, it is life-threatening with severe consequences, and warrants prompt investigation.

References

1. Ahmed M, Abdullatif M. Fetomaternal Transfusion as a Cause of Severe Fetal Anaemia Causing Early Neonatal Death: A Case Report. Oman Med J [Internet]. 2011 Nov [cited 2023 Dec 30];26(6):444-446. Available from: [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3251192/#:~:text=Massive%20fetomaternal%20hemorrhage%20\(FMH\)%20involves,to%200.04%25%20of%20all%20births/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3251192/#:~:text=Massive%20fetomaternal%20hemorrhage%20(FMH)%20involves,to%200.04%25%20of%20all%20births/) doi: [10.5001/omj.2011.113](https://doi.org/10.5001/omj.2011.113)
2. Piva I, Iannone P, Morano D, Greco P. Untimely diagnosis of fetomaternal haemorrhage: what went wrong?. Journal of Perinatal Medicine [Internet]. 2018 July 28 [cited 2023 Dec 30];47(1). Available from: https://www.degruyter.com/document/doi/10.1515/crpm-2021-0079/html?lang=en#j_crpm-2021-0079_ref_004/ doi: [10.1515/jpm-2017-0344](https://doi.org/10.1515/jpm-2017-0344)
3. Smet C, Quiero L, Santos E, Reis A, Costa C. Massive fetomaternal haemorrhage: a case series and review of literature. Case Reports in Perinatal Medicine [Internet]. 2022 May [cited 2023 Dec 30];11(1). Available from: <https://www.degruyter.com/document/doi/10.1515/jpm-2017-0344/html/> doi: [10.1515/crpm-2021-0079](https://doi.org/10.1515/crpm-2021-0079)