CASE STUDY: Massive Obstetric Haemorrhage

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BACKGROUND

Massive obstetric haemorrhage describes estimated blood loss (EBL) exceeding 2500mLs and is a leading cause of worldwide maternal morbidity and mortality.[1]

Management focuses on appropriate multi-disciplinary response, haemorrhage protocol and early discussion with anaesthetics/intensive care and tertiary hospital for transfer.

AIM

This case aims to highlight the potential for massive obstetric haemorrhage even in low-risk patients, and the cornerstones of management, especially in secondary or resource-poor institutions.

CASE

A 32-year-old G3P2 k39 delivered vaginally with active third-stage management after induction for maternal request. She laboured for eight hours and required up to 32mL/hr of intravenous syntocinon. Her pregnancy was low-risk and she previously had two uncomplicated vaginal deliveries.

Spontaneous 500mL blood loss prompted activation of the primary post-partum haemorrhage protocol. The placenta was delivered, and full medical management given. However, due to ongoing bleeding and an EBL of 2000mLs, the massive transfusion protocol was activated before transfer to theatre. Theatre staff arrival time and difficult intubation caused a 40-minute delay till surgical start.

RESULTS

Intraoperatively, briskly bleeding cervical lacerations were sutured and a Bakri with two vaginal packs were inserted. No retained products were found. Total EBL was 3500mLs.

The patient received five units of blood, two units of fibrinogen, two units of cryoprecipitate and carboprost. Hemocue haemoglobin was 93 from 126 pre-operatively. Significant delay of products to the operating theatre and results from ROTEM were noted.

Ongoing bleeding requiring aortic compression post-operatively prompted urgent tertiary transfer, after which theatre re-assessment was unremarkable and the patient was admitted under intensive care.

DISCUSSION

Substantial bleeding can occur due to pregnancy-related increased cardiac output and reduced systemic vascular resistance before the occurrence of deranged biochemical markers.[1] Early recognition and a multidisciplinary team approach are crucial in optimising outcomes.

Clinicians in secondary or resource-poor institutions managing massive obstetric haemorrhage should also be aware of their haemorrhage protocol, blood product availability and be mindful of potential delay/limitations in operative management or blood product retrieval that may worsen patient morbidity. Low threshold to transfer for stabilisation at a tertiary obstetric unit with intensive care should be ensured.

REFERENCES
1. Trikha A, Singh PM. Management of major obstetric haemorrhage. Indian J Anaesth. 2018 Sep;62(9):698-703. doi: 10.4103/ija.IJA_448_18. PMID: 30237595; PMCID: PMC6144554.

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