Major obstetric haemorrhage - how did we get away with not transfusing blood products

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Introduction

Massive Postpartum Haemorrhage is a serious potentially life threatening complication. Recent increase in the rate of massive obstetric haemorrhage (MOH)

- increase in maternal age
- body mass index
- rate of caesarean sections (CS)
- associated co-morbidities

At the University Hospitals of North Midlands

- all cases of massive PPH ≥1500mls are subject to continuous audit
- all cases of massive PPH require a Datex adverse incident report
- are reviewed on a case by case basis as part of the obstetric risk management processes

Aims

Characterise the MOH patients that did not require a blood transfusion

Identify areas for improvement

Methodology

- Retrospective audit
- Based on local standards
- Electronic patient data search (K2 system)
- All parturients with more than 1500 mls peripartum blood loss
- March 2020 to April 2021
- Data collected: demographics, BMI, parity, cause of haemorrhage, mode of delivery and type of anaesthesia, treatment, initial and post 24 hrs haemoglobin results, fibrinogen results and Covid status.

Results

137 patients

Mean age 31.5 (+/- 5.4)

	Patients not transfused n=64 (46%)	Patients transfused n=73 (54%)
Body mass index (kg/m2)	29.2 (+/- 5.9)	28.8 (+/- 5.6)
Percentage of caesarean sections	37.5 %	52%
Estimated blood loss (mL)	1753 (+/- 280)	2315 (+/- 908
Baseline haemoglobin(g/dL)	118.9 (+/- 94.7)	116.5 (+/-11.6)
Fibrinogen	3.97 (+/- 1)	3.41 (+/-1.1)
Bleeding secondary to tone (% of patients)	32.8%	50.7 %
Haemoglobin at discharge	94.7 (+/- 13)	92 (+/-12)

Recommendations

- Identify and treat maternal anaemia to minimise morbidity and the need for blood transfusions
- Consider use of tranexamic acid in ongoing bleeding and document this on K2
- Where the MOH protocol has not been activated, the reason should be clearly documented
- Point of care testing needs to be used in cases of on-going major PPH
- Aim to test all patients for Covid
- Perform fibrinogen level testing for all patients with blood loss >1500mls
- Antenatal clinics
  - Identify and treat anaemia
  - healthy life-style advice
  - role of uterotonics
  - patient information to ensure CS for clear clinical indication

Discussion

Patients with an estimated blood loss (EBL) less than 1500mls were not included as we usually manage them conservatively.

Our data supports the recommendations of the Royal College of Obstetricians (2) that antenatal anaemia needs investigating and treating appropriately to reduce the morbidity associated with PPH and the need for transfusions. T here was higher incidence of CS and atony in the group requiring transfusion suggesting that improved patient information on the use of uterotonics and restricting CS to clear clinical indications could further reduce transfusion rates.

References

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