Halving blood transfusions in Placenta Accreta Spectrum disorders: is it possible? The Placenta Accreta Team (KEMH)

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Introduction

The FIGO Placenta Accreta Spectrum (PAS) consensus 2018 recommends a multidisciplinary team management of PAS disorders as it reduces maternal morbidity and mortality rates[1].

King Edward Memorial Hospital (KEMH) is a tertiary Obstetrics and Gynaecological Hospital located in Western Australia. KEMH set up its inaugural Placenta Accreta team (PAT) in 2018, to provide a uniform, multi-disciplinary approach to manage patients diagnosed with PAS disorders.

In the previous ad hoc model of care, patients with PAS were cared for by any admitting general Obstetrics team and were heavily reliant on ad hoc Gynaeoncology specialist presence during delivery of patients with PAS disorders. The current model of care involves a coordinated multi-disciplinary PAT led by a dedicated group of general O&G specialists with special interests in PATs present on request at delivery.

Results

|	2018 (PAT Team)	2005 – 2014 (Ad Hoc)
Direct Complication Rates		
• Estimated Blood Loss (median IQR)	1.95 L	1.8 L
• Hemoglobin drop (medial IQR)	25.4 g/dL	29 g/dL
• **No of units of PRBC transfused**	**1.22 units**	**4 units**
Other Complication Rates		
• **Transfusion Reactions (%)**	**0% (0/16)**	
• Maternal/fetal morbidity (%)	0% (0/16)	
• External ICU transfer (%)	12.5% (2/16)	
• Return to OT (%)	0% (0/16)	
• Post-op VTE (%)	0% (0/16)	
Hysterectomy Rates		
• Caesarean Hysterectomy	56.3% (9/16)	70.8% (51/72)
• Delayed Hysterectomy	0% (0/16)	2.8% (2/72)
• No hysterectomy	68.8% (11/16)	26.4% (19/72)
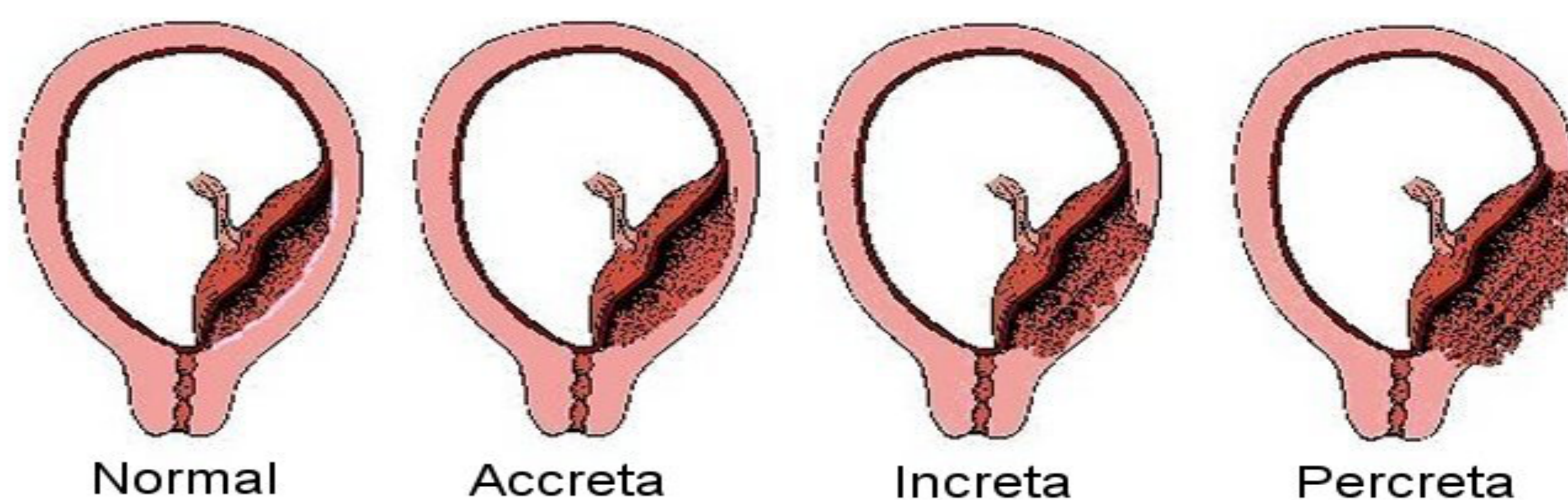
Figure 2. Depicting the PAS disorders

Methods and Materials

16 patients with confirmed PAS (on surgical/histopathological findings) were managed by KEMH's Placenta Accreta Team in 2018.

72 patients with PAS disorders were delivered in KEMH between 2005 and 2014. These results were published[2] in 2016.

Comparisons were made between PAS patients in 2018 and from the previous 10-year study.

Figure 1. Depicting the fetus in-utero.

The Interventions

In line with the FIGO recommendations in 2018[1], the PAT in KEMH implemented multiple measures in it's inaugural year:

Antenatally:

• Access to tertiary pregnancy ultrasound for suspected PAS disorders.
• Individualised care plans for patients.
• Optimisation of iron levels and Hb
• MDT planning of timing and extend of surgery.

Intrapartum:

• Improved cell salvage practice including single suction only.
• Improved generalist O&G surgical expertise.
• ROTEM guided coagulation management
• Tranexamic Acid use.

Postpartum:

• Tolerance of lower transfusion thresholds and use of intravenous iron.

Conclusions

There were improvements in maternal outcome, with a significant decrease in number of units of blood transfused 1.22 vs. 4 units. In addition, there were no transfusion reactions

This may be multi-factorial, with implementation of multiple measures as detailed in 'The Interventions'.

The PAT looks to continue on with a patient survey to obtain feedback, satisfaction levels and tips on improvement of the service.

A repeat audit for the 2019 PAS disorder patients is currently underway and will allow us to compare and contrast the improvements in outcomes and patient satisfaction.

King Edward Memorial Service aims to provide a good standard of care to patients.

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