

Placenta Accreta Spectrum Disorder: a review of 77 cases over 18 years

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Objective:

To describe the evolution of the screening, diagnosis and management of Placenta Accreta Spectrum Disorder (PASD) and analyse the outcomes for women with PASD delivered in a large outer London university associated teaching hospital over the last 18 years; in response to a growing need for structured management of the exponentially increasing incidence of PASD worldwide.

Design:

Retrospective review of 77 cases from 2005 to 2022 inclusive. Data collated on Excel as a continuous audit of all women screened and diagnosed with suspected PASD to enable longitudinal analysis of PASD population characteristics, management options and outcomes.

Method:

From 2005 to 2022, all women with low lying placenta and history of previous caesarean section were screened during their routine 20 week anomaly scan for PASD. Suspected cases were referred to the fetal medicine department and once confirmed, managed with a multidisciplinary team approach. Features audited included time of diagnosis, assessment of risk factors, timing of delivery, gestation at delivery, type of surgical management or otherwise, length of stay, ITU admission, blood transfusion requirements, use of cell salvage, haemostatic techniques, histological evidence and complications to enable development of a specialist PASD team model and pathway.

Primary management	Hysterectomy N=41 Number (%)	Excision N=30 Number (%)
Outcomes		
EBL >3L	21 (51%)	6 (20%)
EBL 1.5-3L	13 (32%)	9 (30%)
Use of blood products	33 (80%)	10 (33%)
Auto transfusion	29 (71%)	16 (523)
Admitted to Obstetric HDU	40 (98%)	27 (90%)
Admitted to ITU	6 (15%)	0 (0%)
Median total length of stay (days)	6 (range 2-31)	4 (range 2-19)
Complications within 8 weeks of delivery		
Bladder injury	11 (27%)	0 (0%)
Ureteric injury	2 (5%)	0 (0%)
Bowel injury	0 (0%)	0 (0%)
Surgical site collection/infection	6 (15%)	2 (7%)
Return to theatre	0 (%)	1 (3%)
Maternal mortality	1 (2%)	0 (0%)

Figure 1: Comparison of PAS outcomes and complications by cohort

Results:

In our cohort, 84% were over 35 years old, 61% had 2 or more previous caesarean sections and 56% were diagnosed in the third trimester by fetal medicine scan. 39% delivered at term and only 16% were delivered less than 32 weeks gestation, including 3 terminations of pregnancy and no transfers to a level 3 NICU. Major obstetric haemorrhage was the most common complication (72%), followed by ureteric injury (14%) and infection (12%). Rates of these complications significantly declined with expansion of the team to include a skilled pelvic urologist and interventional radiologist specialising in prophylactic haemostatic techniques, such as ultrasound guided aortic balloon insertion.

Regarding surgical management, 53% had a hysterectomy and 39% placental excision - with a move towards this in recent years due to patient preference and advancement of surgical and radiological PASD specific skills, resulting in reduced morbidity and allowing future fertility potential.

Conclusions:

Our data reflects the benefits of a continuously evolving multidisciplinary specialist team approach to the management of PASD. Outcomes have improved due to enhanced screening, development of prophylactic haemostatic techniques and surgical management options. The move away from conservative management, with associated complications, and reduction of general anaesthesia, ITU admission and need for massive transfusion of blood products has changed the patient experience of such a complex condition.

References:

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