A comparison of praevia and non-praevia outcomes in placenta accrete spectrum cases: A single centre analysis.

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Background

Placenta accreta spectrum (PAS) causes severe maternal morbidity and mortality. Antenatal diagnosis can optimise maternal outcomes and reduce the risk of complications. PAS cases where the placenta is not low lying are suggested to be more difficult to diagnose antenatally and are potentially associated with different outcomes.

Aim

To compare factors associated with births in PAS pregnancies with and without placenta praevia at a single tertiary centre over 15 years.

Methods

A retrospective review was conducted of all births complicated by PAS, from a site-specific database. Cases with and without a placenta praevia were analysed to compare differences in maternal risk factors, outcomes and histological diagnosis.

Results

Between June 2006 and July 2020 there were 134 cases of PAS, 106 with placenta praevia. Cases without praevia were more likely to have no history of previous caesarean section, and were less likely to be admitted electively for delivery planning or with antepartum haemorrhage. A higher proportion of cases without praevia were delivered at term with no overall difference in emergency or elective deliveries. The overall estimated blood loss was significantly lower in those without praevia.

Table 1: Delivery Outcomes

	Placenta praevia n = 107	Normally sited n = 28	P value
Antenatal admission	91 (86%)	18 (64%)	0.015
- APH	- 62 (58.5%)	- 7 (25%)	
- Elective	- 23 (25.3%)	- 3 (16%)	
Gestation at delivery^	35 (34 - 35)	35 (33 – 38)	0.074
- =/> 37 weeks (n, %)	- 11 (10%)	- 9 (32%)	0.011
Birthweight (grams)#	2510.5 (+/- 598.9)	2726.5 (+/- 747.9)	0.115
Antenatal corticosteroids for fetal lung maturation	87 (82%)	18 (64%)	0.049
Scheduled delivery	84 (79%)	18 (64%)	0.433
Skin incision			
- Midline	- 91 (89%)	- 15 (63%)	0.079
- Transverse	- 11 (11%)	- 9 (36%)	
Uterine incision			
- Vertical	- 86 (81%)	- 8 (29%)	<0.001
- Transverse	- 20 (19%)	- 17 (61%)	
Estimated blood loss^ (mL)	1700 (925-3000)	900 (575-1538)	
EBL >1000mL	79 (74%)	13 46%)	0.011
Placental separation	42 (40%)	22 (79%)	0.001
Hysterectomy	73 (69%)	6 (21%)	<0.001
Surgical diagnosis			
- Accreta	- 35 (33%)	- 13 (46%)	0.133
- Increta	- 34 (32%)	- 5 (18%)	
- Percreta	- 20 (19%)	- 2 (7%)	
Histological diagnosis			
- No invasion	- 22 (21%)	- 7 (25%)	0.247
- Accreta	- 27 (25%)	- 13 (52%)	
- Increta	- 27 (25%)	- 5 (18%)	
- Percreta	- 20 (19%)	- 2 (7%)	

mean, SD ^ median, IQR   APH – antepartum haemorrhage, EBL estimated blood loss

Figure 1 – Estimated blood loss

p value 0.0049
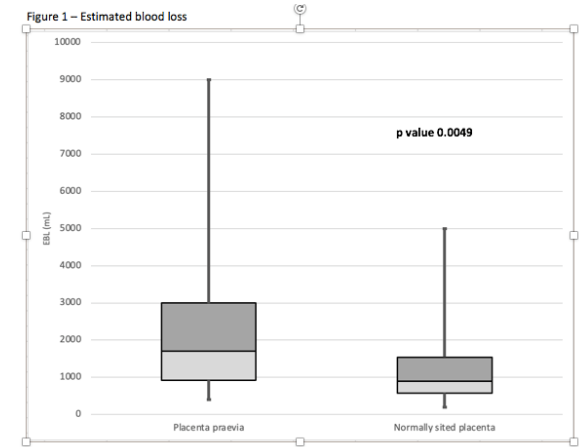
Conclusions:

Suspected PAS without placenta praevia are at lower risk of hysterectomy and massive blood loss. The management approach can be tailored accordingly, with good operative outcomes with transverse abdominal and uterine incisions. Antenatal diagnosis can be difficult to accurately predict the degree of invasion and a higher level of suspicion is required.