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MANAGING PLACENTA ACCRETA SPECTRUM DISORDERS IN A STAND-ALONE TERTIARY INSTITUTION

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INTRODUCTION

Placenta accreta spectrum (PAS) disorders are associated with high rates of maternal and neonatal morbidity and mortality[i]. FIGO recommends delivery in a centre of excellence by a multidisciplinary team however practical limitations exist. Our institution is a stand-alone tertiary maternity hospital with no on-site access to other surgical specialities, an intensive care unit or interventional radiology.

Previously women received standard care with gynaecological oncology leading intra-operative care. In 2018 a dedicated PAS team was introduced. One of four generalist surgeons with an interest in PAS now leads the intra-operative care. We sought to demonstrate that management with the new model of care compared to the previous model was not inferior.

METHODS

We conducted a retrospective analysis of all cases of PAS managed by the team from January 1, 2018 to December 31, 2020. Cases were identified through surgical booking software and cross-checked against team logs. Demographic and outcome data were collected from the files. Findings were compared to a previous similar study within the same institution conducted between October 2005 and September 2014.

RESULTS

36 PAS cases were managed by the team over the three-year time frame versus 84 in the previous nine-year study. Women in our study had a higher median age (36 vs. 33) and BMI (28.65 vs. 24.97), higher rates of sonographically suspected PAS (100.00 vs. 89.29%) and classical caesarean section (91.67% vs. 70.24%) and lower rates of attempted placenta removal (33.3 vs. 51.19%).
There was no maternal mortality in either study. As in table 1, women managed by the PAS team had a slightly higher median estimated blood loss however a lower median haemoglobin drop, and lower rates of large volume blood transfusion and unplanned ICU transfer.

TABLE 1. Maternal Outcomes

	2018-2020	2005-2014
LARGE VOLUME BLOOD TRANSFUSION (>=4 UNITS) *N (%)*	5 (13.89%)	22 (26.19%)
TRANSFER TO ICU *N (%)*	0 (0.00%)	6 (7.14%)
HB DROP (G/L) *median (IQR)*	22.00 (11.5 - 27.75)	28 (19 - 38)
ESTIMATED BLOOD LOSS (ML) *median (IQR)*	2000 (1000 - 3000)	1500 (1000 - 2750)
CELL SALVAGE (ML) *median (IQR)*	379 (0 - 610.50)	396 (288 - 595)
POSTPARTUM INFECTION *N (%)*	14 (38.89%)	21 (25.00%)

DISCUSSION

We hypothesise that women managed by the team received high quality ultrasounds, which influenced the surgical technique favouring classical caesarean section and resulted in higher median blood loss and higher rates of postpartum infection. Furthermore, women managed by the team were higher risk at baseline, and thus more likely to have less favourable outcomes.

We hypothesise that the previous study may have included fewer cases of "true" PAS, resulting in more favourable outcomes. We cannot conclude this with certainty however, as histopathology was not completed in 31 of the 84 cases (36.90%).

The most significant finding was the lower median haemoglobin drop despite a higher median estimated blood loss, which may be due to an increased focus on pre-operative haemoglobin optimisation. Women also had lower rates of large volume blood transfusions and ICU transfer, a common finding in other studies[i],[ii].

The findings of our study demonstrate that management by a dedicated PAS team is not inferior to the previous model of care.

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