



EP15.14

Association of Number of Antenatal Vaginal Bleeding Episodes in Setting of Suspected Placenta Accreta Spectrum Disorders with Pregnancy Outcomes.

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Background

- Placenta accreta spectrum disorders (PASD) involve abnormal placenta attachment, associated with high maternal/neonatal risks
- Vaginal bleeding in PASD increases the chance of emergency delivery, earlier gestational age (GA) at birth, and higher maternal morbidity risk
- The optimal gestational age for delivery in relation to the number of antenatal bleeding episodes remains unknown

Method

- We conducted a retrospective study of patients with suspected PASD who delivered at University Hospital between January 2022 to July 2024
- Delivery outcomes were compared among patients with zero, one, two, or three episodes of antenatal bleeding
- Key factors analyzed include gestational age at delivery, scheduled vs. unscheduled delivery, neonatal weight, and total operative blood loss

Results

- A total of 56 cases of PASD were reviewed, with 28 (50%) having no antenatal bleeding, 11 (20%) have one episode, 9 (16%) having two episodes, and 8 (14%) having three episodes of bleeding

Results (cont)

- Antenatal bleeding significantly increased the risk of emergency or urgent delivery: 63.6% for one episode, 55.6% for two episodes, and 75% for three episodes, compared to 28.6% for no bleeding episodes
- Three episodes of bleeding were associated with lower neonatal birthweight (BW) and earlier GA at delivery (29w 0d) compared to no bleeding (34w 2d) (p = 0.044)
- There was no significant difference in total blood loss between patients with one, two, or three episodes of bleeding compared to those with no bleeding.
- The findings highlight increased risks of preterm delivery and adverse neonatal outcomes with more episodes of antenatal vaginal bleeding in PASD

Conclusions

- Any antenatal vaginal bleeding in PASD is linked to a higher risk of emergent delivery.
- A third episode of bleeding is associated with an increased risk of earlier gestational age at delivery and lower neonatal birth weight.

Number of Bleeding Episodes	Emergent and Urgent Delivery, n (%)	Scheduled Delivery, n (%)	Mean GA at Delivery (weeks and days)	Average Neonatal BW at Delivery (g)	Average Quantitative Blood Loss for C-section and C-Hyst (mL)
No	8 (28.6%)	20 (71.4%)	34w 2d	2593	2145
One	7 (63.6%) (p < 0.001)	4 (36.4%)	34w 0d (p = 0.76)	2318 (p = 0.17)	3343 (p = 0.17)
Two	5 (55.6%) (p < 0.001)	4 (44.4%)	29w 0d (p = 0.13)	2145 (p = 0.048)	3048 (p = 0.45)
Three	6 (75.0%) (p <0.001)	2 (25%)	29w 0d (p = 0.004)	1837 (p = 0.008)	4138 (p = 0.13)

Association of the number of antenatal vaginal bleeding episodes in the setting of placenta accreta spectrum disorder

Women with PASD who experienced antenatal bleeding were more likely to deliver early and have lower neonatal birth weights, with the risk increasing as the number of bleeding episodes grew.