

EP09.23 Impact of Uterine Artery Embolization on Subsequent Pregnancy Outcomes in Women with Previous Postpartum Hemorrhage

Jung Ju Lee, Suhra Kim, Yun Ji Jung, Hayan Kwon, Ja-Young Kwon, Young-Han Kim, Joon Ho Lee
Department of Obstetrics and Gynecology, Severance Hospital, Yonsei University College of Medicine, Seoul, Korea



Background

Uterine artery embolization (UAE) is an effective uterus-preserving treatment for severe postpartum hemorrhage (PPH). However, its impact on subsequent pregnancy outcomes remains uncertain.

Objective

To determine the impact of UAE on subsequent pregnancy outcomes in women with a prior history of PPH.

Methods

- Retrospective cohort study (Aug 2013 – Aug 2023) in 140 women who had a prior history of PPH (UAE group vs. non-UAE group)
- Outcomes
 - Pregnancy outcomes: placenta accreta spectrum (PAS), placenta previa, preterm delivery, recurrent PPH
 - Neonatal outcomes.
- Statistical analysis
 - Multivariable logistic regression
 - Sensitivity analysis

Results

1. Pregnancy outcomes

Outcome	Non-UAE (n = 97)	UAE (n = 43)	aOR (95% CI)	p
Placenta accreta spectrum	3 (3.1%)	15 (34.9%)	56.6 (6.0–532.5)	<0.001
Placenta previa	4 (4.1%)	6 (14.0%)	5.53 (1.20–25.5)	0.028
Preterm delivery	5 (5.2%)	8 (18.6%)	3.83 (0.97–15.2)	0.056
Recurrent PPH	10 (10.3%)	15 (34.9%)	5.03 (1.91–13.2)	0.001

Table 1. Adjusted odds ratios, UAE vs non-UAE.

2. Neonatal outcomes

Outcome	Non-UAE (n = 97)	UAE (n = 43)	Adjusted
GA at delivery, wk	38.6 ± 1.2	37.8 ± 2.4	β -0.87 p = 0.003
1-min Apgar ≥ 7	79 (81.4%)	23 (53.5%)	aOR 0.25 p = 0.006
NICU admission	11 (11.3%)	10 (23.3%)	aOR 1.16 p = 0.80
Composite morbidity	8 (8.2%)	9 (20.9%)	aOR 1.40 p = 0.61

Table 2. Neonatal outcomes according to history of UAE.

3. Sensitivity analysis

Outcome	Main analysis aOR (n = 140)	Sensitivity (43 UAE + 61 controls)
Placenta accreta spectrum	56.6 (6.0–532.5)	OR 10.4 (2.8–38.7)
Placenta previa	5.53 (1.20–25.5)	OR 2.3 (0.6–8.7)
Preterm delivery	3.83 (0.97–15.2)	aOR 2.77 (0.8–9.6)
Recurrent PPH	5.03 (1.91–13.2)	aOR 4.17 (1.5–11.5)

Table 3. Sensitivity analysis restricted to objectively confirmed controls.
PAS and placenta previa: crude OR (Fisher exact); sparse data precluded adjustment. Preterm delivery and recurrent PPH: aOR adjusted for age and prior cesarean.

With objectively confirmed controls (n = 61), PAS and recurrent PPH remained significant; placenta previa did not.

Conclusion

Among women with prior PPH, UAE was associated with increased risks of placenta accreta spectrum, placenta previa, and recurrent postpartum hemorrhage in subsequent pregnancies. Careful prenatal surveillance and counseling should be considered for women with a history of UAE.