

Table 3. Logistic regression of prenatal and perioperative variables and massive blood loss associated with placenta accreta spectrum

| | Univariate logistic regression | P value | Multivariable logistic regression | P value |
|---|--------------------------------|---------------|-----------------------------------|--------------------|
| <i>Management method</i> | <i>0.36 [0.24 - 0.56]</i> | <i>0.0001</i> | <i>1.71 [0.78 - 3.81]</i> | <i>0.182</i> |
| Age | 1.01 [0.97 - 1.05] | 0.62 | | |
| Parity | 1.06 [0.92 - 1.22] | 0.40 | | |
| BMI | 1.10 [1.05 - 1.15] | <0.0001 | 1.09 [1.02 - 1.15] | 0.009 |
| Smoking | 0.96 [0.49 - 1.89] | 0.90 | | |
| Ethnicity | 1.06 [0.87- 1.3] | 0.56 | | |
| Previous CS | 0.90 [0.75- 1.08] | 0.27 | | |
| IVF pregnancy | 0.99 [0.40- 2.45] | 0.99 | | |
| Conception type | 0.54 [0.12- 2.36] | 0.41 | | |
| Gestational diabetes | 0.88 [0.44- 1.79] | 0.728 | | |
| Gestational hypertension | 0.48 [0.11- 2.09] | 0.33 | | |
| Chronic hypertension | 1.44 [0.46- 4.49] | 0.53 | | |
| Preeclampsia | 0.84 [0.18 – 3.84] | 0.822 | | |
| Fetal growth restriction | 2.70 [0.78 – 9.37] | 0.117 | 1.62 [0.32 - 8.09] | 0.558 |
| Prior gynecologic D & C | 1.12 [0.67 – 1.89] | 0.652 | | |
| Prior obstetric D & C | 0.75 [0.48 – 1.17] | 0.207 | | |
| Open myomectomy | 0.57 [0.07 - 4.64] | 0.605 | | |
| Hysteroscopic myomectomy | 4.66 [0.29 - 75.05] | 0.277 | | |
| GA at diagnosis | 1.10 [1.07 - 1.14] | 0.0001 | 1.08 [1.02 - 1.14] | 0.008 |
| Method of diagnosis | 0.32 [0.13-0.81] * | 0.02 | 0.61 [0.18 - 2.09] | 0.431 |
| GA at delivery | 0.94 [0.89 - 0.99] | 0.02 | 1.00 [0.90 - 1.12] | 0.963 |
| Indication of delivery | 1.41 [0.88 - 2.26] *** | 0.152 | 1.22 [0.63 - 2.34] | 0.552 |
| Preoperative hemoglobin | 0.79 [0.69 - 0.91] | 0.001 | 0.77 [0.65 - 0.92] | 0.004 |
| Uterine wall resection | 0.29 [0.068 - 1.22] | 0.09 | 0.51 [0.10- 2.45] | 0.398 |
| Intrauterine balloon | 1.38 [0.75 – 2.54] | 0.298 | | |
| Internal iliac artery ligation | 0.92 [0.48 – 1.76] | 0.801 | | |
| Uterine artery ligation | 0.93 [0.52 – 1.68] | 0.815 | | |
| Bed suturing | 0.54 [0.3 – 1] | 0.052 | 0.64 [0.25 - 1.62] | 0.348 |
| Interventional radiology | 6.37 [3.78 – 10.76] | <0.0001 | 5.62 [2.38 - 13.29] | < 0.0001 |
| Compression sutures | 0.47 [0.29-0.78] | 0.003 | 0.95 [0.49 - 1.85] | 0.885 |
| PAS type (increta, percreta) | 3.90 [2.33-6.51] | 0.0001 | 1.92 [0.98 - 3.75] | 0.053 |
| | 3.74 [2.21-6.35] | 0.0001 | 1.19 [0.52 - 2.75] | 0.682 |
| Placental site (posterior low, central) | 0.22 [0.10-.46] | 0.0001 | 1.01 [0.39 - 2.62] | 0.985 |
| | 1.52 [0.99-2.34] | 0.055 | 2.28 [1.25 - 4.18] | 0.007 |
| Type of invasion | 3.55 [2.39-5.28] | 0.0001 | 3.15 [1.61 - 6.16] | 0.001 |
| CS incision | 1.11 [0.88 - 1.40] | 0.39 | | |
| Incision relation to placenta | 0.57 [0.38 -0.85] | 0.006 | 0.26 [0.13 - 0.51] | < 0.0001 |
| Organ invasion | 2.65 [1.85 - 3.79] | >0.0001 | Bladder: 3.08 [1.95 – 8.61] | < 0.0001 |
| | | | Parametrial: 5.37 [1.21 – 23.79] | |
| Cord clamping | 0.61 [0.34 - 1.09] | 0.08 | 0.43 [0.14 - 1.26] | 0.190 |
| IUFD | 5.79 [1.74-19.25] | 0.005 | 10.25 [1.51 – 69.34] | 0.014 |

BMI: body mass index; CS: cesarean section; IVF: in-vitro fertilization; D & C: dilation and curettage; GA: gestational age; PAS: placenta accreta spectrum; IUFD: intrauterine fetal death

* Ultrasound confirmed by magnetic resonance imaging

** Ultrasound with Doppler assessment

*** Emergency delivery due to placenta accreta