Postpartum Hemorrhage of Genital Tract Origin

Chun-Chieh Chia*, Soon-Cen Huang

Department of Obstetrics and Gynecology, Chi Mei Medical Center, Liou Ying Campus, Tainan, Taiwan.

Postpartum hemorrhage is a highly serious risk for obstetric patients. It remains the main cause of maternal morbidity and mortality. It can be treated medically or conservatively without any sequelae, or it requires surgical intervention to repair the wound and artery ligation or transarterial embolization of the hypogastric, ovarian, or uterine vessels. We report three cases of postpartum hemorrhage of genital origin, resulting in hypotension and impending hypovolemic shock, in which the total blood loss was more than 1,500 mL.

Case 1

A 39-year-old woman, gravida 2, para 1, at 38 weeks' gestation, was referred from a local obstetrics and gynecology department to our hospital with postpartum hemorrhage and impending shock. She underwent vacuum-assisted vaginal delivery, which failed, and emergency cesarean delivery for obstructive labor (baby weight: 3,300 g). Massive postpartum hemorrhage of greater than 1,500 mL then occurred.

Computed tomography showed a large retroperitoneal hematoma in the left pelvic floor (Figure). We reopened the patient's cesarean wound for surgical hemostasis, and found a blue uterus and massive blood clots in the retroperitoneum. A large laceration was found over the posterior vaginal wall after the blood clots were removed, and this extended from the left uterosacral ligament towards the left rectovaginal septum. We sutured the laceration and packed the area with gel foam to achieve hemostasis. Postoperative disseminated intravascular coagulation ensued as a result of excessive loss of blood exceeding 5,000 mL, and fortunately the patient recovered without obvious sequelae.

Correspondence to: Dr Chun-Chieh Chia, No. 201, Tai Kang, Liou Ying, Tainan 736, Taiwan.
E-mail: chia007@iris.seed.net.tw
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Case 2

A 33-year-old woman, gravida 2, para 1, at 39 weeks' gestation, was admitted for labor pain. The labor course was prolonged owing to an abnormal fetal head position (occiput posterior position). She delivered a baby weighing 3,350 g via vacuum-assisted vaginal delivery. She sustained a deep vaginal laceration (about 15 mm deep) from the introitus towards the posterior fornix with active bleeding. Four hours after delivery, a large perineal hematoma formed and the wound still oozed. She underwent intravenous general anesthesia for wound suturing and hemostasis. Her estimated blood loss was

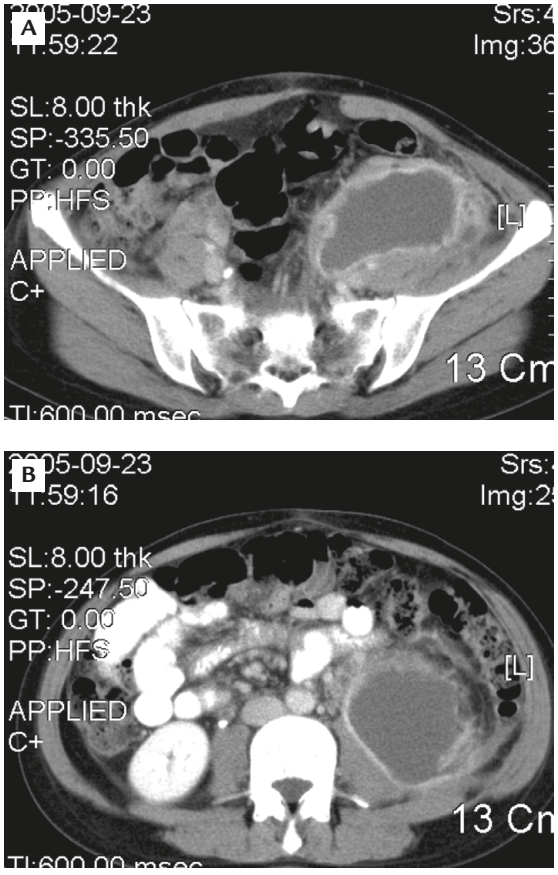

Figure 1. Huge retroperitoneal hematoma extended from left low pelvis towards left renal fossa.

1,500 mL. She progressed well after the primary suture and was discharged 5 days after delivery.

Case 3

A 24-year-old woman, gravida 1, para 0, at 37 weeks' gestation, was admitted for induction of labor because of large fetal size for gestational age. She experienced a smooth labor course and delivered a baby weighing 3,270 g via spontaneous vaginal delivery. She sustained active arterial bleeding from a vaginal laceration near the posterior fornix. Primary suturing under local anesthesia failed to stop the bleeding. She received two units of packed red blood cells for maternal anemia and massive blood loss of about 1,800 mL. The laceration was repaired under intravenous general anesthesia. The postpartum course was uneventful, and the patient was discharged 5 days after delivery.

Discussion

Normal delivery-related blood loss depends upon the type of delivery. The average blood loss for vaginal delivery is about 500 mL, while that for cesarean delivery is about 1,000 mL, and that for cesarean hysterectomy is about 1,500 mL. Postpartum hemorrhage remains the major cause of maternal morbidity and mortality [1]. Its common causes are uterine atony, retention of the placenta, placenta problems (including abruptio, accreta, increta, or percreta), genital tract lacerations, uterine rupture, inversion, and coagulopathy [2].

Severe postpartum hemorrhage originating from the genital tract (Case 1) is uncommon during our daily practice. It results in severe complications for patients, and can result in malpractice accusations for obstetricians. Obstetricians must pay close attention to potential trauma of the posterior wall of the uterus, cervix, or vagina when they perform vacuum extractions and cesarean deliveries.

References

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