

CASE REPORT

SECONDARY PPH DUE TO PSEUDOANEURYSM OF UTERINE ARTERY (A RARE CAUSE)

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ABSTRACT: Secondary PPH is defined as abnormal or excessive bleeding from birth canal between 24hrs to 6 weeks after birth. Secondary PPH occurs in 1% of post-partum women and is associated with high maternal morbidity with approximately 85% requiring hospital admission. Approximately 15% of these women will require a blood transfusion & there is 1% incidence of hysterectomy.

KEYWORDS: Secondary PPH, Pseudoaneurysm, Balloon tamponade, Uterine artery embolization.

INTRODUCTION: PPH is an obstetrical emergency. It is a major cause of maternal morbidity and one of the top three causes of maternal mortality in both high and low per capita income countries. PPH is described as Primary or Secondary. Primary PPH occurs in first 24 hours after delivery and Secondary PPH occurs 24 hours to 12 weeks after delivery. The etiology of secondary PPH is diverse and management is dependent on identifying the cause and tailoring treatment appropriately. The major cause of secondary PPH is uterine sub-involution followed by infection, inflammation and retained placental tissue. Very rarely secondary PPH is also due to hematoma or choriocarcinoma, genital tract laceration and vascular abnormalities. The main aim of treatment is to provide basic resuscitation, establish a cause for the bleeding and tailor the treatment surgically or medically according to the cause.

CASE REPORT: 21 year old female was admitted in SMGS Hospital, Jammu on 12th April, 2015 as a case of secondary PPH. She had undergone LSCS on 4th Feb 2015 at some private hospital in Jalandhar for AFD.

After LSCS, on 9th postoperative day, she had a massive bout of PPH for which she was hospitalized again & she received four units of blood. She underwent suction & evacuation in the same hospital for massive bleeding. She was referred to our hospital on 4th Of March for the same complication. On admission, she was pale and her vitals were stable (Pulse=80/m, B.P=120/80mmHg and Hb was 7gm%). On examination uterus was well involuted and os was closed. There was minimal bleeding on per vaginal examination.

She was put on antibiotics, haemostats, progesterone and was given 1 unit of blood. During the hospital stay on 2nd day of admission, she again had a bout of bleeding. About 500 cc of clots were removed from vagina. Her beta hCG levels were normal. USG was done which showed aneurysmal dilatation of arterial vessel adjacent to caesarean scar measuring 11×10 mm, which was pulsating. Diagnosis of pseudo aneurysm of uterine artery was made and patient was kept under observation. She again had a bout of bleeding on the 4th day of admission and patient went into shock. She received 2 units of blood, two FPPs and balloon tamponade was done by

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Foley's catheter. Balloon tamponade was kept for six days. During these six days she was comfortable, there was no bleeding P/v and her vitals were stable. Following removal of balloon, TVS was done which showed reduction in diameter of aneurysm. Patient was watched for few days and was discharged. She again had a bout of bleeding at home & was referred to higher center for uterine artery embolization. After embolization she was symptomless and she was saved from hysterectomy.



Fig. 1



Fig. 2

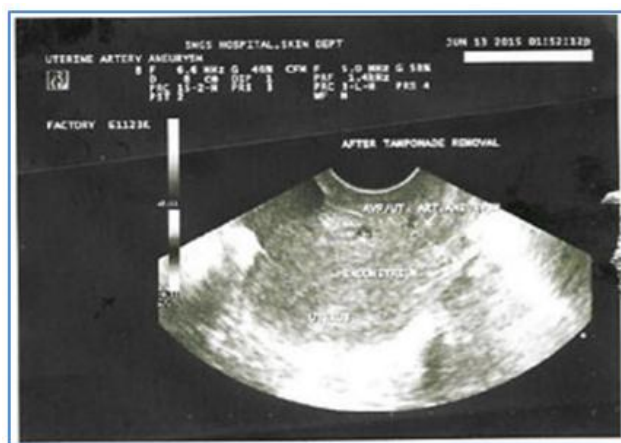


Fig. 3

DISCUSSION: PPH remains a significant complication of childbirth worldwide.^[1] Secondary PPH affects 2% of the women who need to be admitted subsequent to giving birth in developing countries half of whom undergo uterine evacuation.^[2] It is usually caused by retained bits of placenta and membrane infection and rarely choriocarcinoma and uterine aneurysm.^[3]

Treatment usually includes uterotonic agents & other medications such as hemostats. Various surgical approaches have been described to control PPH^[4] The use of hydrostatic balloon catheter to control PPH has been widely reported as achieving good results when medical treatment fails.^[5,6] However this technique may not be helpful in all cases of secondary PPH especially after caesarean section. Hysterectomy can be delayed in these patients who are not critically ill. Pseudoaneurysm / arterio-venous malformation is a well-known complication of

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vascular injury. Real time sonography is simple reliable and inexpensive assessment. The sonographic sign consists of expansile pulsation in the pseudoaneurysm and Pulse Doppler Sonography improves the specificity. The to and fro Doppler sign is diagnostic of every pseudoaneurysm that has a narrow neck.^[7] Pseudoaneurysm of uterine artery, after caesarean sonographic diagnosis and treatment, has been reported by Henrich et al.^[8] A similar case of secondary PPH on 19th day of caesarean section was treated by embolization.^[9] Browne et al reported the first case of embolization to treat an extra uterine pelvic hematoma after surgical attempts.^[10]

The success rate following embolization is 97%.^[11]

Advantages are:

- Exact site of bleeding can be identified.
- Repeat embolization if necessary could be done.
- Avoids hysterectomy and general anesthesia.
- Fertility saving procedure.

CONCLUSION: With newer modulation of treatment, hysterectomy for PPH should be a last resort. TVS, Doppler angiography are useful techniques to diagnose the condition. All modulation of treatment should be tried like balloon tamponade and selective embolization of affected vessel could be done to arrest bleeding.

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