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Case Report

A life threatening secondary postpartum haemorrhage due to AV malformation of uterus: a missed diagnosis

Sanjay Mathuriya[1], Gayatri Mathuriya[2], Ayushi Jaiswal[2]*, Devyani Tiwari[2]

[1]Department of Surgery, ESI Model Hospital, Indore, Madhya Pradesh, India
[2]Department of Obstetrics and Gynecology, MGM Medical College, Indore, Madhya Pradesh, India

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***Correspondence:**
Dr. Ayushi Jaiswal,
E-mail: subhijaiswal13@gmail.com

ABSTRACT

In current practice, the incidence of c section and other pelvic surgeries has been risen steadily worldwide, so is the complications of surgeries one such rare complication is "AV malformation". The classical presentation of uterine AVM is recurrent profuse vaginal bleeding. Presence of retained product of conception can cause diagnostic dilemma and clinical presentation could be similar. We presented a case report of 19 year old primigravida with secondary post-partum hemorrhage, 1 month following caesarean section. USG shows RPOC so patient was managed conservatively and discharge. Again she had massive bleeding per vaginum on Post LSCS day 57, was re-admitted, as the patient was hemodynamically unstable to save her life hysterectomy was performed, patient condition improved and was discharged successfully but at the cost of her fertility. HPR showed 'vascular lesions in lower uterine segment'. Uterine AVM could present in a variety of ways from asymptomatic to periodic or episodic vaginal bleeding or secondary PPH to life threatening torrential vaginal bleeding. The proper diagnosis of AVM is crucial because the primary treatment modalities for the alternative diagnosis of RPOC is dilation and curettage that can worsen the condition. In past AVM were difficult to diagnose. However, availability of Doppler USG scanning has made diagnosis of AVM more feasible. Prompt resuscitation, a high index of suspicion and timely treatment is essential for avoiding a catastrophic outcome in this situation.

Keywords: Caesarean section, RPOC, Arteriovenous malformation

INTRODUCTION

In current practice, the incidence of caesarean section and other pelvic surgeries has been risen steadily worldwide leading to increase in subsequent complications one such complication is AV malformation. Acquired AVM is reported as a consequence of previous uterine trauma such as curettage procedure caesarean section or pelvic surgeries cervical or endometrial malignancy trophoblastic disease.[1] The classical presentation of uterine AVM is recurrent and profuse vaginal bleeding with no obvious cause. Although a definitive diagnosis is usually made by pelvic angiography, TVS scanning with colour Doppler provides a valuable, non-invasive method of diagnosis.[2] We experienced a case of acquired uterine AVM located to lower uterine segment after C-section. The USG showed RPOC, which causes diagnostic dilemma. As the patient was hemodynamic unstable hystrectomy was performed. The patient was successfully treated and discharged but at the cost of her fertility (hysterectomy).

CASE REPORT

A 19 years old young women was admitted in our hospital with complaints of bleeding PV on/off since 1month with the diagnosis of P1L1 post LSCS day 43 with vaginal

bleeding with moderate anemia. On admission active bleeding was not present and based on clinical findings diagnosis of endometritis with possible retained product of conception was made. Treatment in the form of IV antibiotics and blood transfusion was instituted. A pelvic ultrasound scan revealed the presence of a small area of probable retained products of conception. Patient was managed conservatively and was discharged after 6 days of hospitalisation (as she had no episode of bleeding per vaginum after hospitalisation).

On post LSCS day 57, patient had 1 more episode of massive bleeding p/v early morning for which she was readmitted with hypovolemic shock (70 systolic BP, 140/min hypovolemic pulse) as patient was hemodynamically unstable active bleeding present urgently taken for exploratory laparotomy, patient underwent obstetric hysterectomy i/v/o intractable PPH .Patient was monitored closely in ICU and condition improved gradually and was discharged on post-op day 5. In HPR lower uterine segment showed vascular lesions s/o AVM.

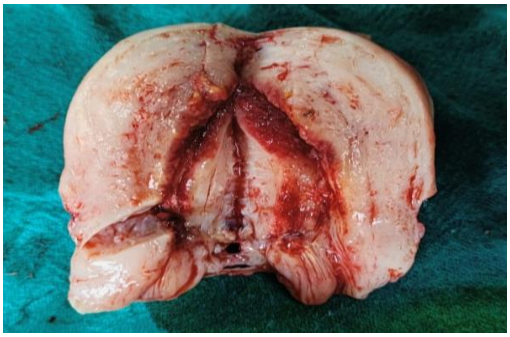

Figure 1: Cut section of uterus.

DISCUSSION

Uterine AVM could present in a variety of ways from asymptomatic to periodic or episodic vaginal bleeding or secondary PPH to life threatening torrential vaginal bleeding. It may rarely present with a pulsatile mass in the pelvis. It is recognised cause of primary and secondary PPH. The proper diagnosis of AVM is crucial because the primary treatment modalities for the alternative diagnosis of Retained products of conception (i. e.; dilatation and curettage) can worsen vaginal bleeding and leading to shock, death is thereafter contraindicated in uterine AVM. Although these vascular anomalies have been reported in both adolescence and following the menopause, they tend to occur predominantly in women of reproductive age and rarely in women who have not been pregnant. In fact pregnancy appears to have an important role in the pathogenesis of uterine AVM.[3] It is postulated that these malformation may arise when venous sinuses become incorporated in scars within the myometrium after necrosis of the chorionic villi. In past AVMs were difficult to diagnose and were usually only confirmed retrospectively in post hysterectomy specimen. However, availability of Doppler USG scanning has made the diagnosis of AVM relatively more feasible though confirmation with angiography (gold standard) is usually required prior to intervening. Case reports have described the use of gonadotropin-releasing hormone (GnRH) agonists to treat uterine AVMs in stable patients. In one case, the AVM completely resolved after 6 months of GnRH agonist therapy (with subsequent successful pregnancy), and in another case, 6 months of GnRH therapy decreased the size of the AVM, which was subsequently embolized for definitive therapy.[4,5] Ultrasound-guided high-intensity focused ultrasound was used in one case to treat an acquired uterine AVM in a stable patient; two treatments were required.[6]

CONCLUSION

Prompt resuscitation, a high index of suspicion and timely treatment is essential for avoiding a catastrophic outcome in this situation. It is recommended that a transvaginal scan and colour Doppler assessment should be performed on any women with moderate to severe secondary PPH to exclude this rare but dangerous abnormality.

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