ORIGINAL RESEARCH PAPER

Obstetrics & Gynaecology

UTERINE ARTERIOVENOUS MALFORMATION (UAVM) IN A MULTIGRAVIDA PATIENT IN THIRD TRIMESTER OF PREGNANCY – A RARE AND CHALLENGING CASE

KEY WORDS: Uterine arteriovenous malformation, postpartum haemorrhage, peripartum hysterectomy.

Dr Arushi Sharma* Medical Officer Specialist (OBG) Civil Hospital Amb , Distt UNA (Himachal Pradesh) *Corresponding Author

Dr Poonam Kumari Medical Officer Specialist (OBG) Civil Hospital Nadaun, Distt. Hamirpur (Himachal Pradesh)

Dr Arushi Mahajan Postgraduate Student, Department Of Radiotherapy, IGMC Shimla (H.P,)

ABSTRACT

Introduction: The clinical presentation of UAVM in pregnancy is variable – most classical clinical feature is intermittent, heavy vaginal bleeding (intrapartum and postpartum haemorrhage) and can also be asymptomatic. In this case report, we present a rare occurrence of uterine arteriovenous malformation with pregnancy in a 35y/o G3P1011 at POG 34 weeks. **Case Report :** A 35 y/o G3P1011 , presented at POG 34 weeks with an USG report showing possibility of vascular malformation in uterus .On MRI, there was evidence of well-defined abnormal area of signal intensity in left lateral uterine wall in lower uterine segment approx. 2.5 to 3 cm above the internal os measuring 3.7*2.5*4.3 suggestive of arteriovenous malformation. Elective c- section followed by bilateral uterine artery ligation done at 37 weeks. Intra-operatively, there was a bluish, cystic, fluctuating swelling in lower uterine segment on left side, 4*3 cm in size, 1 cm below the reflection of UV fold. **Discussion:** UAVM in pregnancy can be difficult to diagnose and manage as they are rarely found in pregnancy. Because of its rare incidence with pregnancy, exact management protocol has not been defined yet. Elective c-section along with bilateral uterine artery ligation or peripartum hysterectomy could be considered as favourable management options. **Conclusion:** Prompt resuscitation, appropriate and timely investigation, a high index of suspicion and timely treatment is essential for avoiding a catastrophic outcome in this situation.

INTRODUCTION:

(AVMs) Arteriovenous malformation also referred to as cirsoid aneurysm, arteriovenous aneurysm, arteriovenous fistula and cavernous haemangioma, can occur in any organ in the body. AVMs are said to occur when there is direct connection of the arterial and the venous systems, without any contribution usually from the intervening capillary vessels. Uterine AVMs are a rare entity, classified into either congenital or acquired. Congenital uterine AVMs are thought to develop from a defect during embryologic differentiation leading to an abnormal vascular connections, whereas acquired uterine Arteriovenous malformations have been reported to occur secondary to previous uterine trauma, such as a curettage or a caesarean delivery, or be associated with neoplastic disorders, including gestational trophoblastic disease (GTD) and endometrial adenocarcinoma[1].

The clinical presentation of UAVM is variable – the classical clinical feature is intermittent, heavy vaginal bleeding, which can be life threatening. UAVM can also be asymptomatic[2].

Incidence

The first reported case of AVM in literature, is attributed to Dubreuil and Loubat, et al. in 1926. There is a paucity of information in reported literature regarding the frequency of these lesions. This is further confounded by the fact that some uterine bleeding due to these lesions respond satisfactorily to medical management, and several of these may therefore go undiagnosed, and thus, not reported.

Diagnosis

UAVM can be diagnosed with grey scale and colour Doppler ultrasonography, MRI and CT angiography; radiographic angiography remains the gold standard.

Treatment

Management of uterine AVM depends on the haemodynamic status of the patient, size and site of the lesion, degree of bleeding symptoms, age of the patient, desire for future fertility and the availability of medical expertise. Available treatment modalities include medications like uterotonics and the combined contraceptive pill, balloon tamponade, surgical removal of AVM, laparoscopic bipolar coagulation, uterine artery embolization (unilateral or bilateral) and hysterectomy.

Case Report:

A 35 y/o G3P1011, presented to our OPD at POG 34 weeks with an USG report showing? vascular malformation in uterus, being referred from nearby hospital. Patient was married for 14 years with previous FTVD 11 years back followed by spontaneous abortion (at 8 weeks) after 4 years of 1st childbirth for which suction and evacuation was done. Patient had no complaints of bleeding per vaginum. Patient was stable, on per abdominal examination – Height of uterus was corresponding to POG, uterus relaxed, cephalic presentation and FHS 144/min.

USG was showing evidence of 2.69*3.5 cm cystic space occupying lesion in anterior wall of lower uterine body. It has got color flow within it.

MRI was advised and on MRI, evidence of well-defined abnormal area of signal intensity in left lateral uterine wall in lower uterine segment approx. 2.5 to 3 cm above the internal os measuring 3.7*2.5*4.3 cm , showing shading and layering of contents on T2WI and is isointense on T1 with areas of hyperintensity in the periphery in dependent part with few blooming foci within it. On USG correlation it is showing color flow, swirl sign and arterial flow pattern. Patient was admitted and planned for elective c-section at 37 weeks.

Intra-operatively, there was a bluish, cystic, fluctuating swelling in lower uterine segment on left side, 4*3 cm in size, 1 cm below the reflection of UV fold. Incision given 1 cm above the swelling. Bilateral uterine arteries were ligated. Left artery was ligated above the swelling.

DISCUSSION:

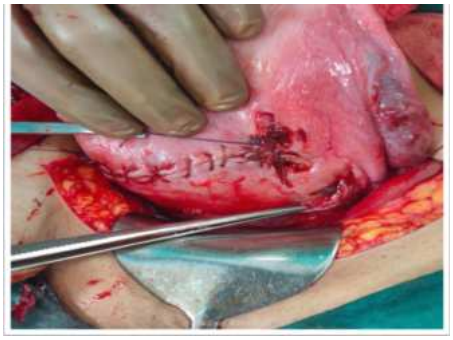
Uterine arteriovenous malformations are a rare cause of abnormal vaginal bleeding Uterine AVM could present in a variety of ways, from asymptomatic to periodic or episodic

vaginal bleeding or secondary post-partum haemorrhage to life threatening torrential vaginal bleeding. It is a recognised cause of primary and secondary PPH.

UAVM can be difficult to diagnose, not only because they are rare, but because they may present similarly to, or in conjunction with, other pregnancy related pathologies, such as sub-involution of the placental bed, retained products of conception and gestational trophoblastic disease. It is important to make an accurate diagnosis of UAVM, as treatment for RPOC and GTD may include D&C, which is contraindicated in UAVM.

In the past AVMs were difficult to diagnose, and were usually only confirmed retrospectively, in post hysterectomy specimens. However, the availability of doppler ultrasound scanning has made the diagnosis of AVM relatively more feasible, though confirmation with angiography is usually required prior to intervening[3]. Uterine artery embolization (UAE) is increasingly becoming one of the preferred treatment modalities in this setting, primarily due to its effectiveness as well as being minimally invasive in nature, with the resultant possibility of preserving uterine function to allow future childbearing and the ready availability of experts to perform these procedures. Prompt resuscitation, appropriate and timely investigation, a high index of suspicion and timely treatment is essential for avoiding a catastrophic outcome in this situation.

Conflict Of Interest :None
Funding: None



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