



## Unusual case of uterine haemorrhage- Refractory Case of PPH

Maheshwari Marisiddaiah and Malavalli Kempasiddaiah Girija

Department of Obstetrics and Gynaecology, Bharatha Rathna Dr B.R. Ambedkar Medical College & Hospital, Bangaluru, Karnataka, India.

### ARTICLE INFO

#### Article history:

Received: 23 March 2016;

Received in revised form:

2 May 2016;

Accepted: 7 May 2016;

#### Keywords

Uterine arteriovenous malformation,  
GnRH agonist.

### ABSTRACT

Uterine arterio venous malformation (AVM) is uncommon cause of menorrhagia. We report a rare case of arteriovenous malformation. A case of uterine haemorrhage in a 20 years old lady who delivered 2 months back came with secondary PPH, where conventional treatment failed. A refractory case of PPH, where GnRH agonist was given.

© 2016 Elixir All rights reserved.

### Introduction

Uterine arterio venous malformations (AVM) are rare lesions with a considerable risk potential. Clinical presentation varies from no signs over various degree of menorrhagia to massive life-threatening vaginal bleeding. Clinical suspicion is essential for a prompt diagnosis and treatment.

Recent reports have mentioned successful conservative management such as surgical removal of AVM, laparoscopic bipolar coagulation of the uterine arteries and long term medical therapy.<sup>1</sup> Uterine artery embolization is also effective in controlling hemorrhage.<sup>2</sup>

### Case Report

A 20 years old lady, married for 11/2 years, was admitted in the department of Gynaecology and Obstetrics in D.B.R. AMBEDKAR MEDICAL COLLEGE AND HOSPITAL with excessive bleeding per vagina since two months.

Obstetric history revealed that she is P1 L1, LCB- 2 months back. Patient underwent emergency Caesarean delivery in a private institution. Indication being IUGR with PROM with Oligohydramnios. She was discharged on D<sub>8</sub> following suture removal. Twenty four days after surgery, she had excessive vaginal bleeding for 1 day. She changed about 15 pads in one day. Bleeding was associated with abdominal pain and passing of clots. She was admitted to another private hospital where 2 units of blood was transfused. Bleeding stopped following symptomatic Rx and discharged. Four days later, patient had one more episode of excessive vaginal bleeding which was managed conservatively in another hospital. She had a total of four episodes heavy bleeding P/V following which she went to Govt hospital where 3 units of blood was transfused and D & C was done.

Episodic bleeding per vagina still persisted for 20 days following which patient came to Dr B R Ambedkar Hospital 20 days later. On admission Hb% was 7.4 gm%. 2 units of blood was transfused.

### USG

Dilated and tortuous arteries in the anterior wall of lower body of uterus with involvement of left lateral wall- ?

Vascular malformation.

### Diagnostic hysteroscopy done:

OT Findings Flimsy COBWEB LIKE adhesions seen in the uterine cavity with multiple big and medium size blood vessels traversing through them.



Figure1: Shows cobweb like adhesions with blood vessels through them.

Planned to do ball cautery at the bases of the vessels if possible but not possible to visualise the bases of several vessels due to cotton wool adhesions.

On POD 3, Inj Leupride 3.75mg sc given.--- bleeding apparently stopped. On POD 5, Patient had sudden episode of heavy bleeding P/V with clots. Foley's catheter No. 16 was placed intrauterine was inserted and the bulb was inflated with 30 ml of distilled water for the purpose of uterine tamponade. Catheter removed on POD 8 (after three days). No fresh episodes of bleeding PV or pain abdomen. Patient was asymptomatic and was discharged on D16 - following admission. Patient was given 3 doses of Inj. Leupride 3.75mg. She had amenorrhoea for 3 months. Patient has regular cycles with normal flow till date.

### Discussion

The first case of AVM was reported in 1926 by Dubreuil and Loubat.<sup>3</sup> It consists of proliferation of arterial and venous

channels with fistula formation and admixture of small capillary like channels. In many cases, distinction between artery and vein becomes blurred due to secondary intimal thickening in the veins as a result of increased intraluminal pressure.

Uterine AVM may be congenital or acquired.

Congenital uterine AVM may be isolated or may occur in association with AVM in other organs.

Acquired AVMs may be due to previous uterine trauma (such as uterine curettage), gestational trophoblastic disease, caesarean section, intrauterine contraceptive devices, necrotic chorionic villi invading venous sinuses.<sup>4</sup>

In our case uterine AVM was acquired in nature as it started after caesarean section.

Though angiography remains the gold standard imaging technique for diagnosis of uterine AVM<sup>5</sup> our case was diagnosed by colour doppler sonography.

Wiebe and Switzer reported seven cases of AVM diagnosed by colour Doppler sonography.<sup>6</sup>

Management depends on the age of the patient, her desire for future fertility and severity of bleeding. In the past, treatment had been confined to hysterectomy. In the last decade, an increasing number of women have been treated conservatively with success and hysterectomy is no longer considered essential.

Acute management includes measures to stabilize the patient, uterine tamponade with Foley's catheter or rolled gauze packing, and medical therapies like estrogens, progestins, methylergonovine, danazol, and 15-methyl-prostaglandin F<sub>2</sub>alpha. In stable women, expectant management, surgical removal of an AVM, laparoscopic bipolar coagulation of the uterine blood vessels, and long-term medical therapy with combined oral contraceptive pills are reported<sup>1</sup>

Recent reports have described successful treatment of uterine artery embolization with different materials used singly or in combination such as autologous blood clot, gelfoam, microfibrillar collagen, polyvinyl alcohol, isobutyl cyanoacrylate and steel coil spring occluders.<sup>7</sup>

Gonadotropin-releasing hormone agonists have been used as an adjunct to embolization and 6 months of therapy reduced the size of a uterine AVM from 5.1 x 3.8 cm to 1.4 x 1.0 cm<sup>8</sup>

Subsequent uterine artery embolization resulted in complete disappearance of the AVM, and normal cycles were resumed 3 months later.

The authors concluded that gonadotropin-releasing hormone agonist therapy may be useful in situations where embolization needs to be postponed.

# Conclusion

Uterine AVMs though rare are potentially life threatening lesions. Though hysterectomy was the only treatment for it in the past, Uterine artery embolization and GnRH agonists are safe and effective method of treatment when uterine function is to be preserved.

# References

1. Bagga R, Verma P, Agarwal N, Suri V, Bapuraj JR. Failed angiographic embolization in uterine arterio venous malformation: a case report and review of literature. Available at [www.medscape.com/viewarticle/567523\\_print](http://www.medscape.com/viewarticle/567523_print) Accessed on 29/7/2008.
2. Nicholson AA, Turnbull LW, Coady AM, Guthrie K. Diagnosis and management of uterine arteriovenous malformations. *Clin Radiol* 1999;54(4):265-9
3. Dubreuil G, Loubat E, Aneurysme cricoide de l' uterus and *Ann Anat Pathol*. 1926;3:697- 718
4. Ghosh TK. Arteriovenous malformation of the uterus and pelvis. *Obstet Gynecol*. 1986;68:40-3 .
5. Bottomley JP, Whitehouse GH. Congenital arteriovenous malformation of the uterus demonstrated by angiography. *Acta Radiologica Diagnostica* 1975;16:43-48 .
6. Wiebe, ER Switzer P. Arteriovenous malformation of uterus associated with medical abortion. *Int J obstet Gynecol*. 2007;71: 155-8
7. Fleming H, Ostor AQ, Pickel H, Forune DW. Arteriovenous malformations of the uterus. *Obstet gynecol* 1989;73(2):209-14 .
8. Morikawa M, Yamada T, Yamada H, Minakami H. Effect of gonadotropin-releasing hormone agonist on a uterine arteriovenous malformation. *Obstet Gynecol*. 2006;108:751-753.