

Post Embolectomy Uterine AV Malformation Pregnancy and its Outcome : A Case Report
Dr Asima khan, Dr Vidyalekshmy R, Dr Brinda Sabu, Dr Roshini Ambat
KIMS Health Trivandrum

Introduction

- Pregnancy after embolization of uterine Arterio-venous V malformation is a rare event.
- Only few cases have been reported so far.

Case Description

- 31-year female,G3P0L0A1, K/C/O RHD post double valve replacement for severe MS, severe TR, Severe PAH, with one previous history of MTP .
- 2nd pregnancy PTD at 21 weeks gestation due to cervical insufficiency. She was on Warfarin.
- She had two severe episodes of bleeding 1 month post expulsion managed with blood transfusion.
- Ultrasound abdomen showed an area of increased doppler vascularity in left posterior myometrium and parametrium- likely vascular malformation left uterine artery.
- Uterine AV confirmed with Angiography.
- Bilateral uterine arteries were embolised with PVC and Gelfoam.
- Post embolization she had fever - managed conservatively.
- Repeat ultrasound showed no abnormal doppler vascularity.
- 2 years later she conceived after ovulation induction with letrozole while on Warfarin, which was stopped at 6 weeks gestation and started on low molecular weight heparin (LMWH) therapeutic dose.
- Antenatally MDT care was given involving Cardiologist, Obstetrician, Fetal medicine specialist .

- At 7 weeks, she had Covid infection which was managed conservatively.
- FTS - low risk for aneuploidies.
- She was on cervical length surveillance in view of previous cervical insufficiency.
- Detected to have short cervix and encerclage was done at 16 weeks.
- LMWH was changed back to warf at 16 weeks gestation after encerclage.

- TAS/FE -Normal.
- GDM detected at 20 weeks, managed with MNT.
- Regular fetal growth monitoring did not show any growth restriction.
- At 36 weeks - switched to LMWH again.
- Delivered female baby 2.57kg vaginally after induction.
- Post natal uneventful and switched to Warf.

Discussion

- Uterine arteriovenous malformation can be either acquired or congenital in nature.
- Congenital uterine AVMs result from arrested vascular embryologic development leading to multiple vascular connections.
- Histologic examination reveals localized proliferation of interconnected arterial and venous vessels in various proportion.
- Acquired uterine AVMs such as arteriovenous fistulae consist of single artery joining single vein resulting from uterine trauma after pelvic surgery, curettage, insertion of intrauterine contraceptive device, or infection.

Discussion Continued

- It may present as severe uterine bleeding which can be sometimes even fatal if not managed properly and in time.
- Previously definitive treatment was considered hysterectomy however, it may not be feasible option for women of child bearing age group.
- Uterine artery embolization should be offered wherever available.
- Several studies have shown pregnancy after UAE as similar to pregnancy after myomectomy for fibroid uterus.
- Spontaneous abortion and growth retardation have been attributed to poor vascularization of the treated areas impeding placental development and maternofetal exchanges.
- Hyperselective embolization to obstruct the vessels feeding the AVM and preserving the other arterial vessels appears to improve the obstetric outlook.

- Doppler ultrasonography provides a non invasive method of diagnosis by displaying the vascular flow in hypoechoic areas within the myometrium

- Embolization is responsible for decreased uterine contractions in the treated areas, resulting in postpartum hemorrhage.
- Conservative management of uterine AVMs using embo- lization therapy is being increasingly developed
- New embolization agents and hyperselective technical procedures aim at reducing morbidity related to such treatments and preserving reproductive capacity in women of childbearing age.



References

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