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Uterine arteriovenous vascular malformation (AVM) masked by gestational trophoblastic disease (GTD): Diagnostic challenge and subsequent treatment

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Abstract

Uterine arteriovenous malformations is a life threatening condition due to multiple arteriovenous fistulous communications within the uterus without an intervening capillary network. It can be either congenital or acquired lesions, but associated with uterine AVM following GTD is a rare condition; when these occur in a pregnant patient or in the immediate postpartum period, clinical presentation may overlap with several other entities such as retained products of conception (RPOC), postpartum endometritis, as well as GTD.

Material and Methods: We present a case of a GTD masked with UAVM presented with life-threatening vaginal bleeding several months after dilatation and curettage (D&C) of missed abortion. Initially managed W medically with methotrexate and finally required a interventional radiology procedure of embolization as a fertility saving procedure.

Conclusion: Uterine AV malformation is a potentially life-threatening condition and prompt diagnosis is required to treat the condition. Uterine artery embolisation should be offered in women as fertility saving measure. Hysterectomy should be used as a last resort of treatment in such patients and should be considered in women with post-menopausal bleeding and in women with life threatening conditions.

Keywords: Uterine arteriovenous malformations, gestational trophoblastic disease, serum B-HCG

Introduction

GTD refers to an abnormal trophoblastic proliferation composed of a broad spectrum of lesions ranging from benign, premalignant hydatidiform mole (complete and partial), through to the aggressive invasive mole, choriocarcinoma ^[1], The morbidity and mortality from GTD were substantial before the advent of sensitive assays for β -hCG. However, the vast majority of women currently afflicted with GTD have favorable outcomes, largely due to improved surveillance techniques and state-of-the-art chemotherapeutic regimens.

Uterine arteriovenous malformations is a life threatening condition due to multiple arteriovenous fistulous communications within the uterus without an intervening capillary network ^[2]; It can be either congenital or acquired lesions, but associated with uterine AVM following GTD is a rare condition; when these occur in a pregnant patient or in the immediate postpartum period, clinical presentation may overlap with several other entities such as retained products of conception (RPOC), postpartum endometritis, as well as GTD ^[3].

Case Report

A 23-year-old female, with history one abortion complaints of vaginal bleeding and lower abdominal pain since 15 days; following dilation and curettage for missed abortion. No history of fever, vomiting, and white discharge per vagina.

Obstetric history

Married life of 2 years; 3rd degree consanguineous marriage.

A1- spontaneous complete abortion; at 2 months of amenorrhea, no D & E was done. Last abortion was 1year back.

Menstrual history

LMP-6/9/21

Previous cycles were regular and normal

Examination

No pallor, icterus, oedema.
 Vitals- stable.
 Breast, spine, thyroid clinically normal.
 Per abdomen- soft, tenderness+ in supra pubic region.
 Per speculum- cervix OS open, active bleeding through OS noted.
 Bi manual examination- uterus anteverted, bulky BFF, mobile non tender.

Investigations and management

Hb-10.1 g/dl
 B-HCG (150521mIU/ ml)
 Histopathology (of D & C) report suggestive of Arias-stella reaction.
 USG pelvis and MRI pelvis both suggestive of? AVM with pelvic congestion.

Chest X-ray- normal study.
 LFT and RFT: with in normal limits.
 Hence medical oncologist opinion was taken and suggested for medical management with methotrexate and to repeat B-HCG levels after 1 week;
 After week there was fall in B-HCG levels and with improvement of clinical symptoms;

USG and MRI features

USG features showing (Fig.1)

1) Ill-defined irregular multifocal cystic spaces near the anterior wall of uterus involving funds and midbody with increased vascularity within the few cystic spaces with largest cyst measuring about 4.2* 4cms and few cyst in parametrial region with increased vascularity- could be AV malformation with pelvic congestion.

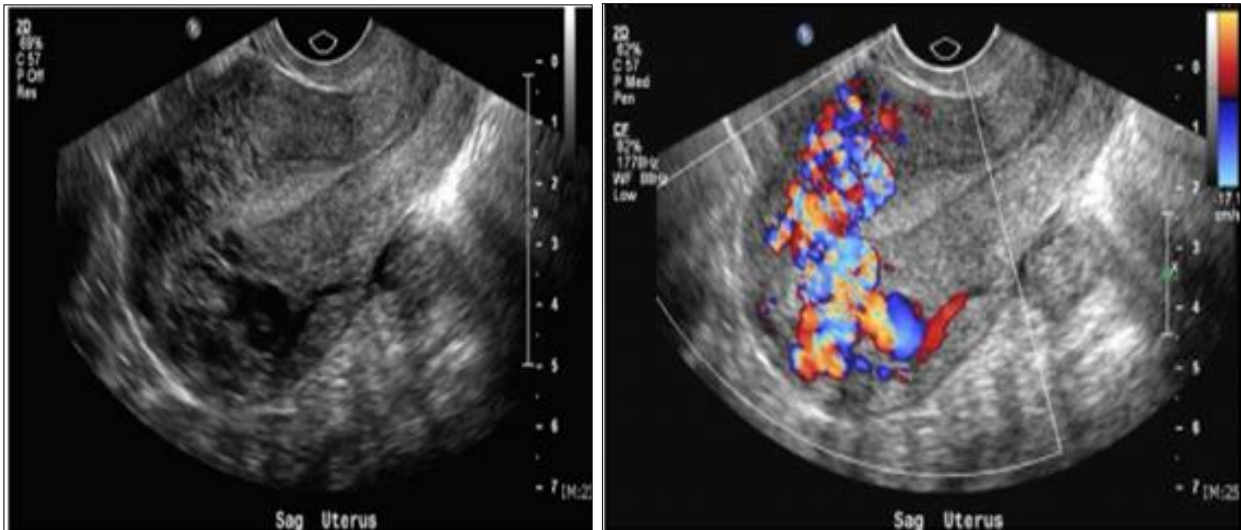


Fig 1: USG of Pelvis showing features of multiple cystic spaces with increased vascularity

2) MRI showing (Fig. 2)

(A) Uterus is bulky and shows a relatively well defined T1/T2 heterogenously hyperintense cystic mass of 5.6x4.6x5.7 cms (CCxAPxTR) in right antero-lateral myometrium

(B) Multiple T2 hypointense flow in myometrium and adjacent parametrium.

(C&D)On post contrast study mild heterogenous enhancement is noted with arterial feeder from uterine artery.

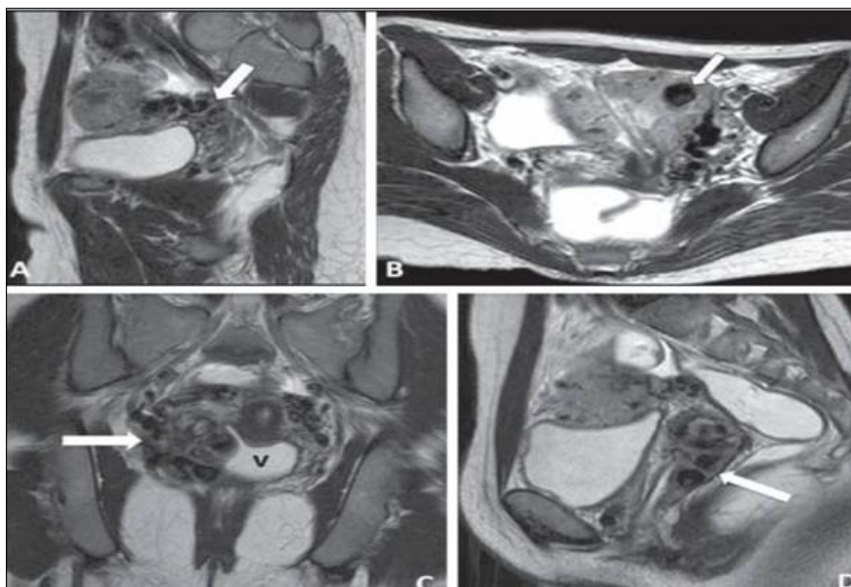


Fig 2: MRI of Pelvis showing features of multiple cystic spaces with heterogenous enhancement in posterior wall due to feeder artery from uterine vessels

Risk stratification scoring

- Stage 1GTN
- Risk stratification scoring -4 (low risk)
- Hence was started on 8 day methotrexate regime.

Age > 40	0
Antecedant pregnancy (mole)	0
Duration from event (< 4 month)	1
Pre-treatment Bhcg (104 to 105)	2
Largest tumor size (3 - 4 cmts)	1
No of metastasis	0
Site of metastasis	0
No of failed chemotherapy regimens	0

After 1 week

Came with history of persistent vaginal bleeding with pain abdomen

B-HCG of 13,317mIU /ml.

Interventional radiologist opinion was taken suggested for uterine artery embolization;

HRCT - thorax normal

Started with 2nd cycle of methotrexate; and there was further fall in B-HCG levels with clinical improvement.

At end of 2nd cycle: B hcg dropped to <2.49 mIU/ml.

After a week of second cycle

Patient came with a complaint of vaginal bleeding with lower abdominal pain

Persistently Bhcg levels were below <2 mIU/ml

Patient and attenders were counselled for transcatheter arterial embolization and referred to interventional radiologist.

Intraoperative was uneventful, postoperatively there was improvement with symptoms, and was discharged on post operative day 4.

Follow up

After a week with check scan and B hcg level (0.2mIU/ml)

Every month for six months OCP's.

Conclusion

Uterine AV malformation is a potentially life-threatening condition and prompt diagnosis is required to treat the condition. Profuse irregular vaginal bleeding can lead to massive hemorrhage which can pose a threat to the patient's life. The management of the condition requires high index of suspicion and good clinical acumen to diagnose it ^[4, 5].

Ultrasonography with colour doppler can be considered to diagnose the disease however MRI angiography is considered as the gold standard diagnostic tool for establishing the diagnosis.

Uterine artery embolisation should be offered in women as fertility saving measure. Hysterectomy should be used as a last resort of treatment in such patients and should be considered in women with post- menopausal bleeding and in women with life threatening conditions ^[6].

References

1. Hammad R, Nausheen S, Malik M. A Case Series on Uterine Arteriovenous Malformations: A Life- Threatening Emergency in Young Women. *Cureus*. 2020 July 27;12(7):e9410.
2. An-Chi Lin, Yao-Ching Hung, Li-Chia Huang, Tsan-Hung Chiu, Ming Ho. Successful Treatment of Uterine Arteriovenous Malformation with Percutaneous Embolization *Taiwanese Journal of Obstetrics and*

Gynecology. 2007;46(1):60-63,

3. Aseeja V, Kaur T, Taneja BK, Mittal A. Arterio-Venous Malformations and Retained Products of Conception: A Case Report and Brief Review. *Webmed Central obstetrics and Gynaecology*. 2011;2(9):WMC002204
4. Chen Y, Wang G, Xie F, Wang B, Tao G, Kong B. Embolization of uterine arteriovenous malformation. *Iran J Reprod Med*. 2013 Feb;11(2):159-66.
5. Seo KJ, Kim J, Sohn IS, Kwon HS, Park SW, Hwang HS. Failed transarterial embolization of subserosal uterine arteriovenous malformation. *Obstet Gynecol Sci*. 2013 Sep;56(5):333-7.
6. Hashim H, Nawawi O. Uterine arteriovenous malformation. *Malays J Med Sci*. 2013 Mar;20(2):76-80.