Arterio-Venous Malformations and Retained Products of Conception: A Case Report and Brief Review

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Arterio-Venous Malformations and Retained Products of Conception: A Case Report and Brief Review

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Abstract

Uterine Arterio-venous malformations (AVM) are rare and potentially life threatening condition. AV malformations may be congenital or acquired. We report a case of acquired uterine AV malformation associated with retained products of conception. The condition can easily be confused with gestational trophoblastic disease.

Introduction

Arterio venous malformations of the uterus are uncommon entities and should be considered in patients who present with unexplained profuse genital bleeding. This entity is generally associated with presence of molar disease, choriocarcinoma and uterine surgery, but may be congenitally acquired. We report a case of acquired uterine AV malformations with retained products of conception who presented to us with recurrent episodes of bleeding after medical termination of pregnancy.

Case Report

A 39 year old female, P3L2A1 came to us with recurrent episodes of bleeding per vagina after MTP at 11 weeks of pregnancy at a private clinic. She had MTP two months back by suction evacuation and after that D&C twice because of recurrent bleeding at same clinic. Post MTP ultrasonography findings were suggestive of retained products of conception. She had received two doses of methotrexate Injection for persistent complaint of bleeding. B-hcg level were not done prior to admission to our hospital. Tissue was not sent for histopathological examination after D&C. Her last child was 12 yrs old, delivered by caesarian section. At the time of admission vitals were stable, she was not bleeding, and mild pallor was present. On per vaginal examination external os was closed. Uterus was 6-8 weeks pregnant uterus size and bilateral fornices were free. Her Hemoglobin was 9.4 gm%, BT, CT and PTI were WNL. Ultrasonography and Color Doppler showed heterogeneous mass 2.2cm x 2cm size with prominent vessels in myometrium suggestive of either retained products of conception (with AV malformations or Invasive mole (Fig 1&2). Urine for pregnancy test was negative. B-Hcg level were 22.3 miu /ml. D &C was attempted but she started bleeding profusely and the procedure was abandoned, bleeding get stopped within five minutes. She received two units of blood transfusion. In view of recurrent bleeding and doubtful diagnosis of retained POC with AV malformations or invasive mole the decision for hysterectomy was taken. She had excessive bleeding during surgery and received three units of blood. Intra-operatively there was leash of vessels on right side and anterior surface of uterus in isthmic region. She had excessive bleeding during surgery and received three units of blood .On cut section uterus showed a mass about 3x3cm size with dilated vessel channels in isthmocervical area. Histopathological report came out as products of conception. Post operative period was uneventful.

Discussion

Acquired uterine Arterio-venous malformation is a rare but potentially life threatening condition and as such must be considered in the differential diagnosis of cases of abrupt, profuse vaginal bleeding following uterine curettage. The condition can easily be confused with retained products of conception and gestational trophoblastic disease. (1) Uterine AVMs result in sudden and massive vaginal bleeding that maybe life-threatening. They may occur as late postpartum hemorrhage or post abortion hemorrhage, and the bleeding results from a spontaneous vessel rupture or vessel rupture triggered by a D&C.

Ginsberg N.A. et al reported a case of Arterio-venous malformation of uterus following dilatation and suction curettage for missed abortion. The patient had recurrent bleeding episodes after suction curettage and even after repeat D&C. Uterus appeared normal by gray scale ultrasound imaging. However, color flow Doppler study showed marked turbulence in the anterior wall. Angiography confirmed the presence of

(1)
AV malformation. (2) S.M.Kelly et al reported the association of an Arterio-venous malformation with secondary postpartum hemorrhage in a young woman who presented with recurrent vaginal bleeding in third week post caesarian section. (3) Our case also had D&C twice outside with the diagnosis of retained products of conception, had received methotrexate injection, but bleeding did not stop. Doppler flow study at our institution showed abnormally dilated vessel channels with heterogenous mass suggestive of retained products of conception with AV malformations or invasive mole. B-hcg levels were low 22.7miu/ml.

After admission to our institute we also attempted D&C but patient started bleeding profusely, the procedure was abandoned and decision for hysterectomy was taken. High index of suspicion of acquired AV malformations may avert the catastrophic bleed triggered by D&C in such type of patients. Joseph A et al reported a case with a heavy intractable bleeding per vaginum, following dilatation and curettage for an incomplete abortion. A provisional clinical diagnosis of gestational trophoblastic disease was made. After radiological investigations this was diagnosed as uterine Arterio-venous malformation. The patient was treated by uterine artery embolization, because she wanted to preserve the fertility. (4) Arora R. et al reported three cases of uterine AV malformations with recurrent vaginal bleeding. One case presented with bleeding three weeks after MTP. Repeat D&C was done with the diagnosis of incomplete abortion which landed up in massive torrential bleeding for which she was transfused three units of blood. With the suspicion of AV malformation color Doppler study done which confirmed the diagnosis. (5)

These case report studies shows that patient presenting with recurrent bleeding after D&C, One should have high index of suspicion of AV malformations and should be confirmed by color Doppler study prior to repeat D&C. The usual diagnosis in such type of patients with recurrent bleeding is either incomplete abortion or gestational trophoblastic disease. B-hcg levels will exclude the diagnosis of Gestational Trophoblastic Disease.

Conclusion

Uterine Arterio-venous malformations are rare lesions with a considerable risk potential. Recurrent or massive life-threatening vaginal bleeding may occur. D & C procedure may further worsen the situation if the condition is not diagnosed. High index of Clinical suspicion is essential for a prompt diagnosis and treatment.

References

Illustrations

Illustration 1

Fig 1 Ultrasound showing retained products of conception with AV Malformations

Illustration 2

Fig 2 Color doppler showing retained products of conception with AV Malformations
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