Uterine Artery Embolization in the Management of Undiagnosed Genital Bleeding

Sangeeta Chippa[*], Dipti Vaidya[*], Shubhangi Mande[**], Swati Shiradkar[***]

[*]Assistant Professor, [**]Associate Professor, [***]Professor and HOD, Department of Obstetrics and Gynaecology, Mahatma Gandhi Missions Medical College and Hospital, Aurangabad, Maharashtra, INDIA.

Corresponding Addresses:

c_sangeeta12@rediffmail.com, sangeethadoc81@gmail.com, bamchi@rediffmail.com, vaidyaanand624@gmail.com

Case Report

Abstract: This is a case report of a case of post abortal bleeding with hepatic dysfunction with coagulopathy. The lady presented primarily as uncontrollable post abortal bleeding with severe anaemia and coagulopathy. The recent history of her check curettage in view of her having incomplete abortion was the only clinching factor for the diagnosis. She had AV malformation in the uterus which got stimulated for bleed due to the check curettage which was done. Hence as life saving procedure uterine artery embolization was performed on this lady successfully. This is exceptional case where uterine artery embolization was performed in a clinically unstable patient.

Keywords: genital bleeding; uterine artery embolization; Arteriovenous malformation (AV malformation).

Introduction

Transcatheter arterial embolization is an highly effective percutaneous technique for controlling obstetric haemorrhage mainly postpartum haemorrhage [1,] uterine leiomyomas, uterine Arterio Venous Malformation and also for controlling chronic genital bleeding [2]. It has several advantages over surgery, which includes higher success rate, less morbidity, avoidance of anaesthetic complications and preservation of fertility [3]. Here we are presenting a case, who presented with deranged hepatic function with thrombocytopenia with prior history of uterine curettage for incomplete abortion and managed successfully with uterine artery embolization.

Case Report

23yrs old P1L1A1 was referred to our hospital as a case of febrile illness with deranged hepatic function with thrombocytopenia. Prior to transfer, she was admitted in private hospital for jaundice, fever and breathlessness. She had h/o evacuation done for missed abortion 2 ½ months back. Then she had intermittent spotting and was diagnosed as incomplete abortion. Check curettage was done one day prior to admission. Her Haemoglobin was 6.3gm%, Serum bilirubin 8.1% and platelet count was 32,000 and INR before admission was 1.67. There she received 1 unit of whole blood, 2 units of FFP and 1 unit of platelet. On admission, she had tachycardia, tachypnoea; she was severely pale and icteric. She had uterine height of 14wks size and internal os closed without any bleeding per vaginum. Primarily this patient appeared as a case of incomplete abortion with hepatic dysfunction with coagulopathy with severe anaemia or choriocarcinoma with metastases or AV malformation with hepatic dysfunction with coagulopathy. Hence she was investigated for the same and the investigations revealed the following:

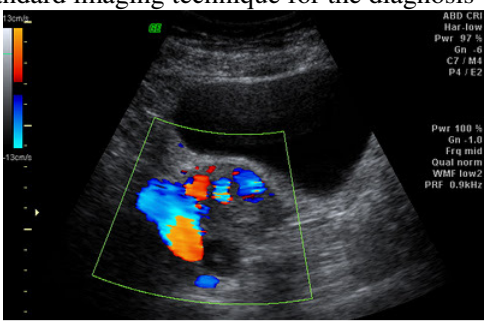
Her ultrasound on admission was suggestive of intrauterine collection of 150cc. Haemoglobin on admission was 5gm/dl, platelet count of 38,000; Total leucocyte count was 7,700 and deranged Liver Function Tests & Kidneys Function Tests. Her total bilirubin increased to 12.2mg% and liver enzymes also were deranged. Her serum creatinine on admission was 1.9mg% and her D- Dimer was 9,061. Her beta hCG was 913. Hence the diagnosis was now hepatic dysfunction with coagulopathy with? AV malformation, since it was difficult to diagnose it in presence of intrauterine collection.

She was started on injectable antibiotics. She was given blood and blood products for correction of anaemia and deranged coagulation profile. On Day 2 and Day 3 of admission, her uterine height increased progressively from 14 weeks to 20 weeks on D3 of admission. Her haemoglobin remained as 5.6gm% even after blood transfusion. Review ultrasound was suggestive of increased intrauterine collection from 150cc to 250cc. Patients general condition did not improve even after all supportive measures. So case was discussed with Interventional Radiologist and decision of uterine artery embolization was taken on Day3 of admission, assuming the same diagnosis. The same was discussed with relatives and consent was obtained. Bilateral uterine artery embolization was done through transfemoral route using macrocoiles 3 x 4mm (two on left side and one on right side). Patient was stable after the procedure. On 3rd postoperative day, she passed a big clot vaginally, of 10x11cm size and her uterine height decreased progressively in the postoperative period. This proved our diagnosis retrospectively. Patient received total 3 units blood, 4 units platelets and 9 units FFPs. With all these

supportive measures patient's general condition improved and patient was discharged on haemoglobin of 8.8gm%, platelet count of 1,51,000 and normal coagulation profile, liver function tests and kidney function tests.

Discussion

Uterine Artery Embolization is a fertility preserving procedure and it has become a life saving procedure in patients with obstetric haemorrhage[1]. Reported success rate of Uterine Artery Embolization in obsteric haemorrhage is 90% [4, 5]. In this patient, hepatic dysfunction was the cause for deranged coagulation profile. Our first differential diagnosis was incomplete abortion but there were no retained products of conception on ultrasound and her internal os was closed on admission. Choriocarcinoma was ruled out because of beta hCG Report of 913. This value can be explained with decidual bits with intrauterine collection. This strongly pointed towards Arterio Venous Malformation that might have developed after prior suction and evacuation for missed abortion which worsened after check curettage. On gray scale sonography, Arterio Venous Malformation appears as multiple small anechoic spaces focally or symmetrically distributed in the thickened myometrium or endometrium. On Doppler, these spaces appear as two colour mosaic pattern with juxtaposed reds and blues flowing in different directions [6,7]. Angiography remains gold standard imaging technique for the diagnosis [7].



Ultrasound Picture of AV Malformation

In our patient, ultrasound was showing large intrauterine collection and this collection increased in size progressively. To prevent further intrauterine blood loss, decision of evacuation was taken. Considering patients age, fertility and possibility of hysterectomy in case of uncontrolled bleeding, case was discussed with Interventional Radiologist and decision of Uterine Artery Embolization was taken.

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