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CASE REPORT

Conservative Surgery -Bilateral Uterine Artery Ligation for Uterine Av Fistula

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Abstract

An important but rare differential diagnosis for abnormal uterine bleeding is Uterine Arteriovenous fistula. The bleeding in these patients is due to abnormal vasculature in uterus, where is congenital or acquired connection between the arterial and venous circulation of the uterus. Acquired AVM is seen following Endometrial damage. Symptoms can vary from menorrhagia, metrorahgia to acute severe bleeding episode. Treatment options usually offered is uterine artery embolization and in failed cases of embolization, hysterectomy. This case report describes a conservative surgical management by Laparoscopic uterine artery ligation as a treatment option for Uterine AV fistula in young women who desire to retain fertility.

***Keywords**: conservative surgery, lap uterine artery ligation, uterine AV fistula*

Introduction

Uterine Arterio venous malformation is abnormal vascular communication between the myometrial artery and veins. Acquired AVM is seen following damage to endometrium as in Miscarriage, DnC, C-section, trophoblastic disease *

Diagnosis is usually by ultrasonography with colour Doppler flow, showing a characteristic vascular mosaic pattern with high flow rates and low resistance. Further confirmation can be done by CT angiography or Magnetic resonance angiography.

The treatment option generally offered is Uterine artery embolization. This is a conservative procedure to preserve the uterus in young women. In failed cases the next option offered is hysterectomy. In women who desire to preserve their ovarian function also –UAE has a small risk of ovarian failure …precent. Pregnancy following uterine artery embolization may be complicated with spontaneous abortion, Placenta praevia, acreta and PPH*.

In this case report – Minimally invasive surgery was offered to a young woman with Acquired uterine Av fistula who wished to preserve her uterus and her ovarian function with least complication to the subsequent pregnancy

Case Report

A young 26-year-old lady was referred with complaints of Abnormal uterine bleeding. She had recent history of incomplete abortion at 7 weeks followed by curettage. One week following this procedure she reported complaints of moderate bleeding PV, which was on and off in the past 2 months and not responding to oral tranexamic acid and oral progesterones.

She had previously no complaints of AUB and her medical and family history was unremarkable. When she presented to us, her bleeding had stopped in the last 4 days. She had come with a Ultrasound report – TVS with a diagnosis of uterine Av fistula. ET was 6.7 mm, with no evidence of retained products.Tuft of vessels were noted in the fundus and body of uterus measuring 42x39m with low resistance flow (PSV -46 mm). Few vessels extend to myometrium.

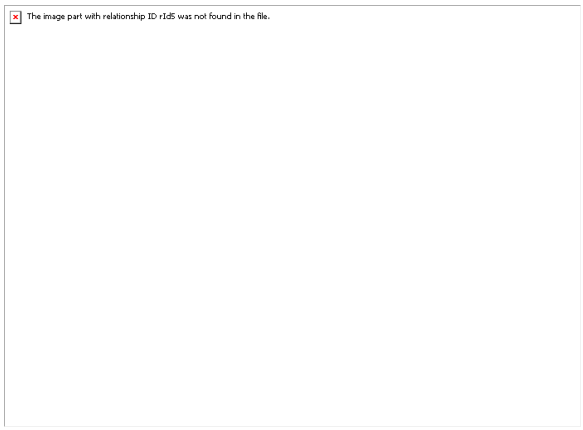

Fig 1: Tuft of vessels were noted in the fundus and body of uterus measuring 42x39m

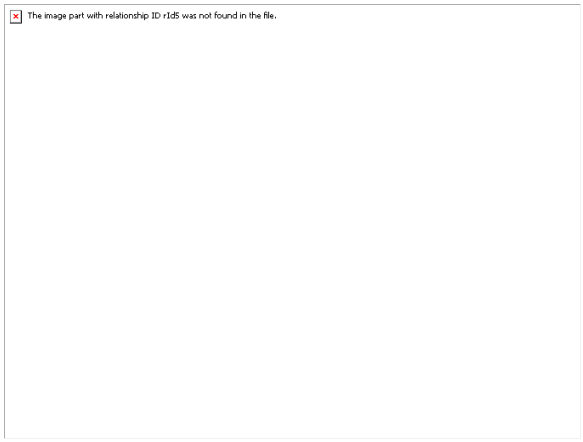

Fig 2: PSV -46 mm

Her examination revealed normal vitals. She had no evidence of genital infection or bleeding. TVS repeated showed the same picture – multiple dilated vessels in myometrium with bi directional flow on colour Doppler. On grey scale a non-homogenous mass with myometrial cystic –tubular structures were seen.

She underwent a MR angiography which confirmed the diagnosis of uterine AV fistula.

Figure 3

Ill-defined sepiginous flow related signal void with focal disruption of junctional zone (measuring 24x 29 mm) is seen invoving posterior myometrium in the fundal region.Prominent flow voids are seen in the bilateral parametrium(L>R).Feeding vessel seen likely to arise from left uterine artery draining into myometria venous plexus.

Generally, the confirmatory test is by CT angiography if UAE is planned. It also gives a good view of the vasculature pattern and any feeding collateral if any

Treatment options were discussed with her and she opted for Laparoscopic bilateral uterine artery ligation.

All relevant pre op work up and PAC done and under General anesthesia she was posted for Diagnostic hysteroscopy and Laparoscopic bilateral uterine artery ligation.

On diagnostic hysteroscopy, retained products of conception was noted which was removed under vision with operative hysteroscope and sent for Histopathology which confirmed the same

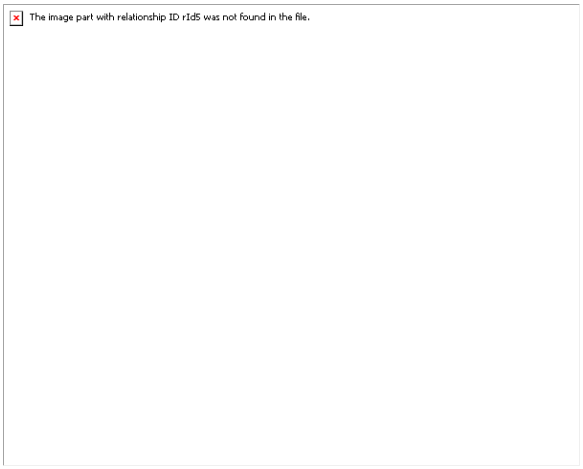

Fig 4:

Diagnostic laparoscopy was done. Pelvic anatomy was normal. Uterine artery ligation was done at origin from the internal iliac artery accessed by the posterior approach.

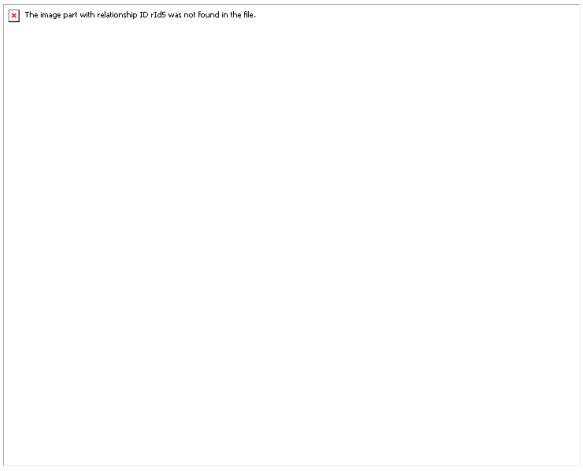

Fig 5:

Operating time was 70 minutes.She had an uneventful post op recovery and was discharged on 2nd post op day. She has no complaints of Aub presently and is considering her 2nd pregnancy

Case report 2

25-year-old lady with 6 months of married life, had a complete mole for which she underwent Dilation and evacuation for the same. After Dnc her B HCG Was on the declining trend and was on weekly follow up. 6 weeks following her evacuation she had an episode of acute bleed pv which was managed with Iv Tranexamic acid followed by oral tranexamic acid for 3 days.

Ultrasound of pelvis was done which showed a suspicion of uterine Av fistula..ET -8mm

Figure 6

Uterus shows large heterogenous area 3.1x3 cm along the anterior myometrium wall showing multiple dilated vascular channels. On CDS-Low resistance arterial flow.PSV-80 cm/s

MRI done to confirm diagnosis

She underwent Diagnostic hysteroscopy, which was normal. Followed by laparoscopic bilateral uterine artery ligation.

Conclusion

Since UAE is a rare condition, there are not many cases to compare and discuss. This procedure is a good option to be offered to young women with UAE. Apart from the advantage it preserves both fertility and ovarian function, this can be performed in any hospital doing laparoscopy surgeries and does not need the availability of interventional radiologists.

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