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A Rare Case of Recurrent Pregnancy Loss with Extensive Pelvic Arteriovenous Malformations

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Congenital arteriovenous malformations of female pelvis are rare and potentially life-threatening. They cause massive vaginal bleeding and repeated abortions. They pose an extremely difficult therapeutic challenge. One such case is presented here.

Mrs. N. 29 years old G4A3 with two and half months amenorrhoea was admitted at St. Martha's Hospital with low backache since one day and brownish-discharge p/v for one and half months. Obstetric history revealed that the first pregnancy was a molar one and the second ended in spontaneous abortion at 6th month. In her third pregnancy cervical stitch had been put and the patient had missed abortion at 6th month. Her menstrual cycles were regular with heavy flow.

On examination, she was pale, abdominal examination revealed a uterus corresponding to 18 weeks

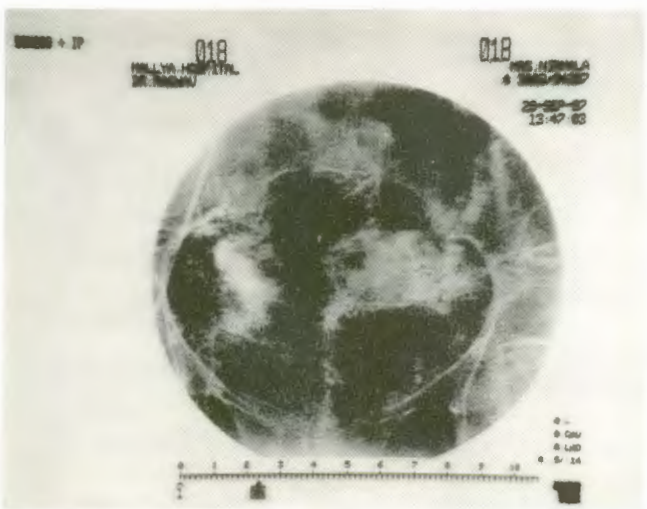

Fig. 1: Aortogram showing the A.V. Malformations in the pelvis more on the left side.

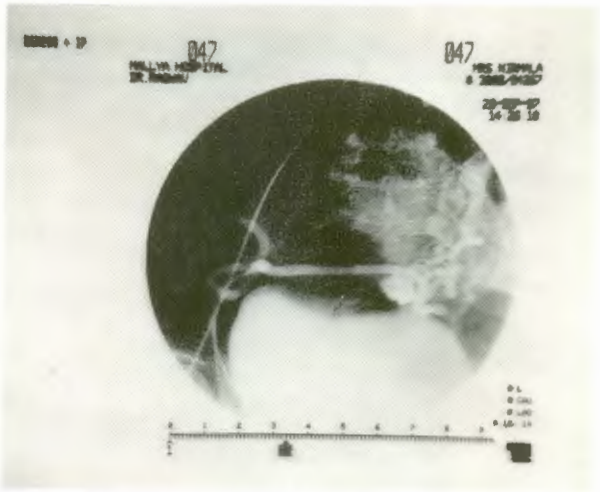

Fig. 2: Aortogram showing a large feeder from celiac axis via common hepatic artery, gastro duodenal artery & into the pelvis.

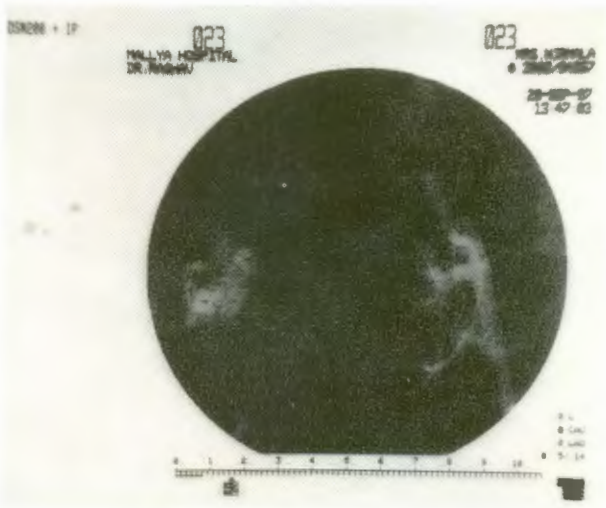

Fig. 3: Shows smaller feeders via the Rt – Internal iliac artery which cross the midline

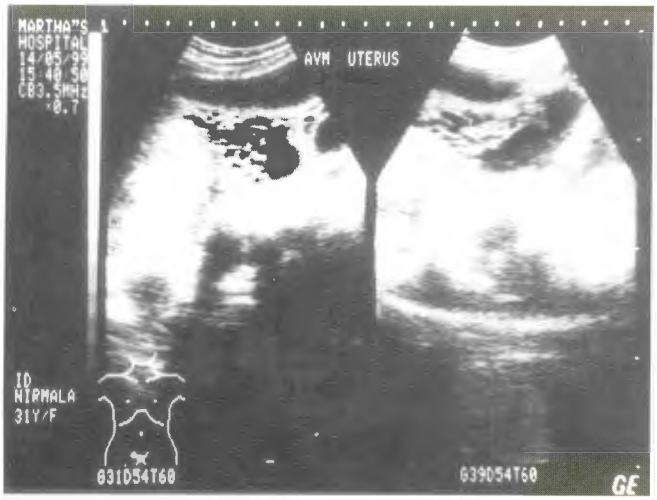

Fig. 4: Shows dilated vascular channels in the left lower uterine segment and cervix.

gestation with a thrill felt over the uterus, external ballotment was negative and a bruit was heard. P/S examination – cervix normal with brownish discharge through the os. P/V examination – internal os closed. Uterus soft, 18 weeks size with pulsations in the left fornix. The provisional diagnosis was 1) Threatened abortion (? Wrong dates) 2) Molar pregnancy.

Ultrasound at 8 weeks showed a single live intra-uterine gestation with the left side of uterine myometrium and left adnexal region showing large tortuous vessels stopping short of endometrium, suggestive of cervical and lower uterine segment arteriovenous malformations (AVM). Repeat ultrasound on admission showed missed abortion at 8 weeks with features suggestive of pelvic AVM. Color Doppler confirmed the diagnosis. Final diagnosis was missed abortion with lower uterine segment and cervical AVM. Vascular surgeon suggested on aortogram prior to evacuation. This showed large AVM occupying left part of pelvic cavity with multiple arterial feeders, the largest feeder was from gastroduodenal artery and several feeders from left internal iliac and external iliac arteries. Embolisation followed by evacuation was done. Subsequently she underwent 2 more embolisation procedures. She did not practice contraception as advised and was readmitted one and half years later in her 5th pregnancy at 13 weeks with signs of threatened abortion. Ultrasound and color Doppler confirmed a viable gestation with pelvic AVM persisting. Patient had 2-3 episodes of life threatening hemorrhage. Vascular surgery was not undertaken as AVM was extensive. Conservative management with blood transfusion, bed rest and tocolytics improved the condition of the patient. She was discharged after 19 days of conservative management. She was readmitted within 6 days with signs of inevitable abortion and aborted spontaneously Patient recovered completely with antibiotics and blood transfusion. She was discharged after explaining about the risks involved with further pregnancies. She is presently on injection depot Provera for both control of menorrhagia and as a contraceptive measure.

Recent reports have described successful treatment of AVM by embolisation with subsequent pregnancies indicating preservation of reproductive function. Nicholson et al (1999) have reported that there are only 4 patients who conceived after uterine AVM embolisation procedures. Preservation of uterine function is confirmed in our case who is possibly the 5th woman in world literature to become pregnant after uterine AVM embolisation.

Acknowledgement

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References

1. Nicholson A.A., Turubull L.W., Coady A.M. and Guthrie K: J. of Clinical Radiology: 54; 265, 1999.