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Secondary abdominal pregnancy

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ABSTRACT

Abdominal pregnancy is an extremely rare occurrence represent 1.4% of ectopic pregnancy. We present a case of a 30 year old lady, Gravida 3 Para 2 with 22 weeks gestation who attended our hospital with abdominal pain. She had a history of amenorrhoea for 4 months and pregnancy was confirmed for which she underwent medical termination of pregnancy (MTP) by a quack. Later, she developed abdominal pain and vaginal bleeding. Ultrasound revealed a nonviable abdominal pregnancy and fetal demise. On laparotomy, a dead fetus was found in the peritoneal cavity and placenta densely adherent to the anterior surface of the uterus. Fetus was extracted and placenta was retained. Abdominal pregnancy after tubal sterilization and being further missed during MTP is an exceptionally rare event. Sonographic confirmation of intrauterine pregnancy at the time of performing medical or surgical abortion will help to prevent the missed or delayed diagnosis of such life threatening events.

Key-words: Abdominal pregnancy, Scar dehiscence, Intrauterine pregnancy

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INTRODUCTION

Abdominal pregnancy is defined as presence of gestational sac in the peritoneal cavity excluding tubal ovarian or intraligamentory pregnancy.[1] Abdominal pregnancies account for about 1.4% of all ectopic pregnancies. Incidence of abdominal pregnancies ranges from 1:1000 to 1: 30,000 pregnancies.[2] It is a rare obstetric complication with high maternal mortality and even higher perinatal mortality. It can be primary or secondary with the latter being the most common type. Primary peritoneal implantation is rare. Secondary abdominal pregnancy is a condition where the embryo or foetus continues to grow in the abdominal cavity after its expulsion from the fallopian tube or other position of its primary development. Secondary abdominal pregnancy almost always follows early rupture of a tubal ectopic pregnancy into the peritoneal cavity with the incidence being 1 in 10,000 live births.[3] Advanced abdominal pregnancy is rare and accounts for 1 in 25,000 pregnancies.[4] The maternal mortality rate ranges from 0.5 % to 18 %. The perinatal mortality is very high ranging from 40 -95%.[5] The clinical presentation of an uncomplicated abdominal pregnancy is not specific. The most frequent complaints are abdominal pain or suprapubic pain, bleeding per vaginum, gastrointestinal symptoms, painful fetal movements and altered bowel movements.[6]We report a rare case of secondary abdominal pregnancy after tubal sterilization and being further missed during MTP.

CASE REPORT

This is a case of abdominal pregnancy in 30 year old Gravida 3 Para 2 Live 2 with 21 weeks 4 days gestational age with two previous LSCS came with complaints of bleeding per vaginum for 15 days, pain in abdomen for 6 days, loose stools for 3 days. She underwent Hernioplasty followed by tubectomy on 1st of April 2021 following which she had history of amenorrhea for 4 months, her LMP was on 19th March 2021. She took a urine pregnancy test on 29th of July and was tested positive following which she consulted a local quack medical practitioner for termination of pregnancy. For 3 days following the procedure the patient had a history of haematuria which subsided later. After 3-4 days symptoms of pain in abdomen and bleeding p/v aggravated and she underwent a scan on 17-08-2021 which showed extrauterine pregnancy and fetal demise. On examination of the patient at the time of admission, she has mild pallor, febrile, with normal blood pressure 100/70 mm of Hg, pulse 64 bpm on p/a examination mass of size 18-20 weeks present , Fetal parts felt, FHS- absent, p/v uterus felt separately, AV, size could not be assessed. Her investigations showed haemoglobin 10.2gm%, total leucocyte count 14,570 cell/cumm, APTT 56.1sec, PT- 16.8sec, INR-1.33, blood urea-17 mg/dl, serum creatinine 0.6mg/dl, random blood sugar-80 mg/dl, routine urine analysis, thyroid profile, serum electrolytes were normal. Patient underwent ultrasound abdomen and pelvis, MRI abdomen and pelvis to confirm abdominal pregnancy.

Findings of MRI abdomen are as follows: A well defined extra uterine gestational sac with non-viable fetus noted within abdomino-pelvic cavity extending superiorly from level of L2 vertebral body and inferiorly reaching up to superior surface of urinary bladder. It is seen indenting the anterior surface of uterus below, gestational sac is seen displacing bowel loops posteriorly and laterally towards left side and communicating with endometrial cavity through the scar (Fig. 1, 2). Fetus is non-viable showing maceration, soft tissue edema and positive spalding sign. Placenta noted along the anterior and inferior aspect of gestational sac superiorly corresponding to the level of L3/4 vertebrae with superior margin 2.5 cm above umbilicus in the midline. There is thinning of myometrium in the anterior aspect of lower uterine wall suggestive of scar dehiscence and endometrial cavity is seen communicating with the gestational sac through the area of scar. Multidisciplinary team was formed involving the General Surgeons, Urologists and Intensivists, planned for Cystoscopy f/b Laparoscopy f/b Laparotomy.

Figure 1:Endometrial cavity communicating with gestational sac

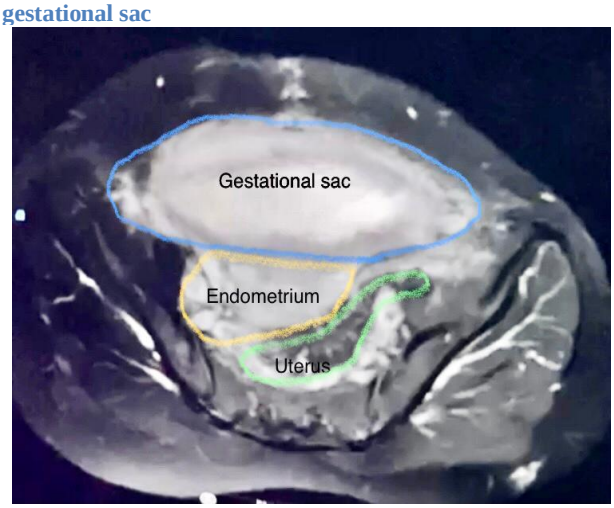
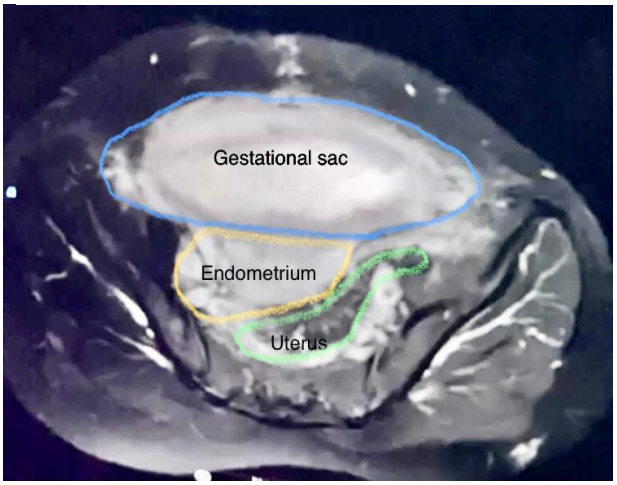
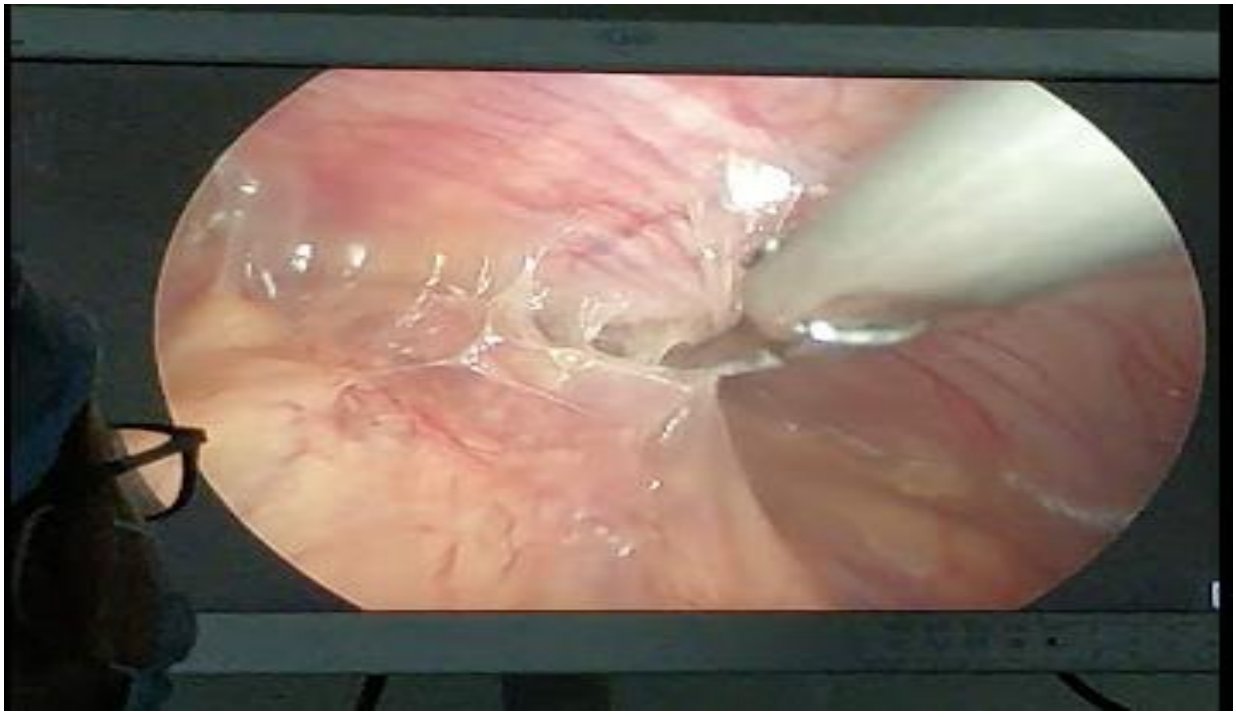


Figure 2:Figure 2: Extra Uterine gestational sac with non-viable fetus through the area of uterine scar



High risk consent was explained to the patient and attenders, blood and blood products were arranged. Pre operatively, the patient had episodes of fever and hypotension for which she was started on Inj Taxim 1 gm IV BD and Inj Metrogyl 100ml infusion tid and shifted to Medical Intensive Care Unit (MICU) suspecting Obstetric sepsis. She underwent Cystoscopy f/b Diagnostic Laparoscopy f/b Laparotomy under General Anesthesia. Findings include Cystoscopy- normal study, Laparoscopy findings are as follows- omentum adhered densely to the anterior abdominal wall, adhesiolysis done (Fig. 3).

Figure 3:Omentum adhered to the anterior abdominal wall



Laparotomy findings are as follows- omentum adhered to the gestational sac. Infracolic omentum adhered to transverse mesocolon, adhesiolysis done. Amniotic fluid drained out after amniotomy (Fig. 4).

Figure 4:Amniotic fluid being drained out

Fetus delivered out, membranes removed, umbilical cord clamped close to placenta, placenta retained completely. Uterus could not be visualized (Fig. 5, 6).

Figure 5:Placenta retained completely, uterus could not be visualized

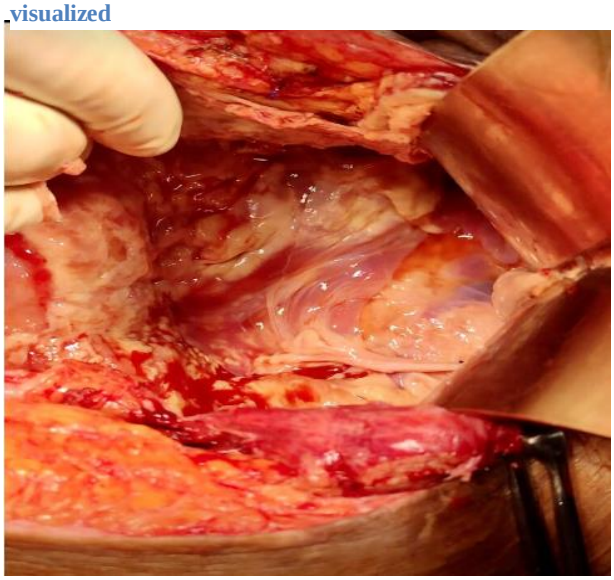


Figure 6:Dead fetus of 20 weeks gestation

1 unit PRBC was transfused intra-operatively, and the patient was started on Inj. Noradrenaline drip 1cc/hr which was continued post operatively. Patient remained in post-op ICU for 3 days, during which she was dependent on Noradrenaline in view of hypotension. Patient continued to have repeated fever spikes 1/day post-op for which she was given IV antibiotics. On POD-3 morning she developed one episode of hypotension associated with sudden desaturation for which she was resuscitated immediately and started on Inj. Noradrenaline and Inj. Dobutamine. D-dimer was elevated to 5500 ng/ml. Cardiologist opinion was taken and ruled out major PTE by bedside 2D-Echo, increased ongoing Inj Enoxaparin 0.4 ml s.c. once daily to 0.6ml twice daily s.c.Bedside USG was done to rule out any intra abdominal collections for septic foci f/b CECT abdomen-with no significant findings, B/L lower limb doppler done to rule out DVT. Injectable IV antibiotics were escalated to Inj Meropenam 1 gm IV tid. Patient was shifted to MICU and Inotropic support gradually tapered on POD-4. Blood culture showed no growth. Ambulation was allowed on POD-5 and the patient was stable so shifted to the general ward where her hemodynamic status was stable throughout. On physician opinion the patient was continued on Inj. Meropenam 1 gm IV

TID for 7 days from POD-3. Complete suture removal done on post op day-9. USG Abdomen and Pelvis on POD -10 was done: which showed regressing gestational sac and thickened omentum. On 27/8/21 serum Beta HCG was-2.22miu/ml. Patient was advised for discharge on POD 10.

DISCUSSION

Abdominal pregnancies are one of the rarest types of ectopic pregnancy, representing 1% to 1.4% of ectopic pregnancies.[7] They are typically classified as primary or secondary. Pathology criteria for primary abdominal ectopic pregnancy have been established by Studdiford and include normal tubes and ovaries, no evidence of uteroplacental fistula.[8] Secondary abdominal pregnancies are more common, thought to result from tubal abortion or rupture or, less often, from subsequent implantation within the abdomen after uterine rupture. Risk factors for abdominal pregnancy include PID, multiparity, endometriosis, assisted reproductive techniques and tubal damage. The most common area of implantation within the abdomen is the posterior cul-de-sac, and pregnancies have been confirmed in the mesosalpinx, omentum and bowel, liver, spleen, abdominal wall, and within broad ligament.[7] Abdominal pregnancy is associated with high morbidity and mortality, with the risk for death seven to eight times greater than from tubal ectopic pregnancy and 50 times greater than from intrauterine pregnancy, most likely resulting from later diagnosis. Ours appears to be secondary abdominal because as the MRI is suggestive of Scar dehiscence and endometrial cavity is seen communicating with the gestational sac through the area of scar. Most often abdominal pregnancy is easily missed and diagnosed after significant intra abdominal bleeding. Patients with uncomplicated abdominal pregnancy have persistent abdominal pain which was also seen in our case.[9] Ultrasound detects only approximately half of all abdominal ectopic pregnancies. Ultrasound features that have been suggested include gestational sac surrounded by loops of bowel, normal appearing fallopian tubes and ovaries.[10] MRI provides additional information in patients who need a precise diagnosis in cases of ambiguity and can help define the extent of abdominal and pelvic organs invasion by the placental tissue, and is not contraindicated when needed.[11] Once abdominal pregnancy is diagnosed, open laparotomy is usually needed to allow better access to deal with placental attachment and control the bleeding.[12,13] On the other hand, removal of the placental tissue is less difficult in early pregnancy as is likely to be smaller and less vascular. For this reason, laparoscopic surgery should be considered for early abdominal pregnancy.[14,15]

The most important aspect in managing abdominal pregnancy is the management of the placenta. Sepsis, secondary haemorrhage, paralytic ileus, abscess formation and bowel obstruction have all been reported as the complications of leaving the placenta in situ. Resorption of placenta is a slow process and can be monitored by serial ultrasound, CT scan and MRI. However, there is no definite consensus regarding the management of the placenta and each case should be individualized based on the intra operative findings. In our case, placenta has been retained completely as it was densely adherent to the anterior surface of the uterus. Methotrexate was not used as the patient was hemodynamically unstable in the early post-operative period.

Abdominal pregnancy after tubal sterilization is rare. Even rarer is to miss it during medical abortion. Before the procedure it is necessary on the part of the treating doctor for the patient to advise urine pregnancy test and for sonologial confirmation of intrauterine pregnancy which was not performed in this case. We did not find a similar case in literature, may be due to underreporting or due to the rare nature of the pregnancy itself.

CONCLUSION

This case highlights an imported fact that Ectopic pregnancy and secondary abdominal pregnancy with potentially life threatening complications remain undiagnosed in patients who did not undergo prior ultrasonographic confirmation of intrauterine gestation. Abdominal pregnancy after tubal sterilization and being further missed during MTP is an extremely rare event. Sonographic confirmation of intrauterine pregnancy at the time of performing tubal sterilization and before administration of medical abortion will help prevent the missed or delayed diagnosis of such life threatening conditions.

DECLARATION

A written informed consent was obtained from the patient for the publication of this case-report and its related images.

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