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ECTOPIC PREGNANCY : DIAGNOSTIC DILEMMA IN MODERN ERA: A CASE SERIES.

Obstetrics & Gynaecology

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ABSTRACT

A pregnancy which develops outside uterus is called ectopic pregnancy that comprises nearly 2.3% of total pregnancies (1). In first case a 30 years old female, G2A1 presented with lower abdominal pain and bleeding per vagina with 2 months of amenorrhea. A ruptered right ovarian ectopic pregnancy found during exploratory laparotomy. Right ovarian reconstruction was done. In second case, a patient, G2P1D1 presented with bleeding per vagina and lower abdominal pain with history of 2.5 months of amenorrhea and chronic pelvic inflammatory disease. During laparotomy, right sided ruptured tubal ectopic pregnancy found on the distal end of fallopian tube and 1500 ml of hemoperitoneum. Intra operatively right salpingectomy with fimbriectomy was done. In third case, an unmarried primigravida with history 3 months of amenorrhea with symptoms of of acute lower abdominal pain with PV spotting. On examination, 5*4 cm adnexal mass was palpable in right fornix. USG suggestive of empty uterus with right adnexal large mixed echogenic lesion with two components. One component sowing fetal skull, spine, with absent liquor of 13weeks 02 days gestation with absent cardiac activity. Another component shows a gestational sac with embryo of 7 weeks 04 days with absent fetal cardiac activity. We did emergency exploratory laparotomy which showed unicornuate uterus with a right sided ruptured rudimentary non communicating horn with twin pregnancy. Hemihysterectomy with ipsilateral salpingectomy was done o remove the rudimentary horn. In the fourth case, G5P2L2A2 with previous 2 LSCS, with 9 weeks gestation presented with complain of excessive bleeding during MTP. Patient was posted for MTP with Tubal Ligation. As soon as he MVA cannula was inserted, it was filled with blood for 6 consecutive times without any products of conception. Patient was referred to our hospital for further management. At our institution laparoscopy revealed a 10*12 cm hematoma in lower uterine segment on previous LSCS scar site across the entire length of the scar. Decision of laparotomy was taken and hematoma of 200 ml was removed and products were sent for histopathology. Scar was excised after control of bleeding and uterus was reconstructed. All these cases were managed successfully. This case series emphasizes that early sonographic diagnosis of location of pregnancy is necessary, there should be high suspicion for ectopic pregnancy even beyond the first trimester and the decision of conservative management in early ectopic pregnancy should be taken judiciously after checking all parameters of the patient.

KEYWORDS

INTRODUCTION

An ectopic pregnancy occurs when a fertilized ovum gets implanted outside normal uterine cavity (2). Incidence in India it is 2.3% (1). Ectopic pregnancy occurs most commonly in fallopian tube (90%) and it can also occur in the ovary, myometrium, broad ligament, cervix, previous caesarean section scar or rudimentary horn rarely (3). Extra-uterine pregnancy generally presents at 6-9 weeks of gestation (4). Ectopic pregnancy generally presented with history of amenorrhoea, abdominal or pelvic pain with or without bleeding per vagina and haemorrhagic shock in case of ruptured ectopic pregnancy. High clinical suspicion is needed to diagnose an ectopic pregnancy along with trans-abdominal or trans-vaginal sonography and serological pregnancy confirmation (5). In this article four case reports (all un-registered patients) have been discussed about ectopic pregnancy which were diagnosed and managed in Byramjee Jeejeebhoy Medical College and Sassoon General Hospital, Pune, Maharashtra, India.

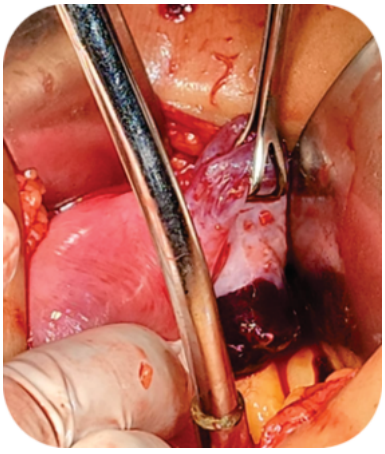

Figure 1: A Ruptured Right Ovarian Ectopic Pregnancy Found During Exploratory Laparotomy

Case 1

In first case a 30 years old female, G2A1, was referred from private hospital with lower abdominal pain and bleeding per vagina with 2 months of amenorrhea and sonography suggestive of ruptured ectopic pregnancy with hemoperitoneum. On examination right sided forniceal bogginess was felt. Beta HCG was 135. A ruptered right ovarian ectopic pregnancy found during exploratory laparotomy (figure 1). Blood loss of 500 ml was noted (clots of 170 grams were removed). Ovarian ectopic products of conception were removed and sent for histopathology. Right ovarian reconstruction was done. Intraperitoneal drain was kept. One bag of packed RBCs was transfused. Histopathology report was consistent with ruptured ectopic pregnancy.

Figure 2: Contents of Hernia Were Left Fallopian Tube Fimbrial End Attatched to Part of Mesocolon

Case 2

In second case, a patient, G2P1D1 with previous LSCS with 1.5 months of amenorrhea referred from district hospital in view of ruptured ectopic pregnancy with hemoperitoneum with anemia. Patient presented with bleeding per vagina and lower abdominal pain with history of 1.5 months of amenorrhea and hypotension. On examination, right fonix had bogginess on palpation. During laparotomy, right sided ruptured tubal ectopic pregnancy found on the distal end of fallopian tube and 500 ml of clots were removed. Hemoperitoneum was noted. Intra operatively right salpingectomy

with fimbriectomy was done. Two units of packed red blood cells and one unit of double strength FFP was given. Intraperitoneal drain was kept which was removed on day 4 and patient was discharged on day 6. But patient again presented on post operative day -18 with swelling at drain site. Diagnostic laparoscopy was done again. Drain site hernia was diagnosed. Contents of hernia were left fallopian tube fimbrial end attatched to part of mesocolon (figure 2). After incising 1 cm at drain site skin scar, the fallopian tube and part of mesocolon were reposited and skin closure was done.

Case 3

In third case, 23 year old unmarried primigravida with history 3 months of amenorrhea with symptoms of of acute lower abdominal pain with PV spotting. On examination, 5*4 cm adnexal mass was palpable in right fornix. USG suggestive of empty uterus with right adnexal large mixed echogenic lesion with two components(figure 3 and 4).

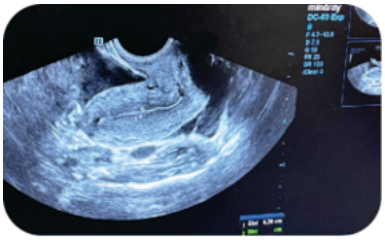

Figure 3: USG Suggestive of Empty Uterus.

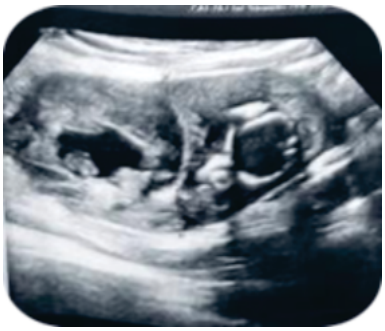

Figure 4: Right Adnexal Large Mixed Echogenic Lesion with Two Components

One component showing fetal skull, spine, with absent liquor of 13weeks 02 days gestation with absent cardiac activity. Another component showed a gestational sac with embryo of 7 weeks 04 days with absent fetal cardiac activity.

We did emergency exploratory laparotomy which showed unicornuate uterus with a right sided ruptured rudimentary non communicating horn with twin pregnancy (figure 5 and 6). Blood clots 1200 ml were removed.

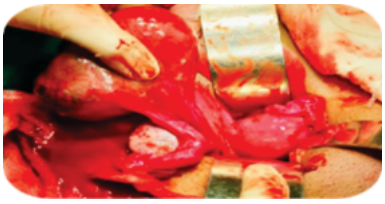

Figure 5: Rudimentary Non Communicating Horn with Twin Pregnancy

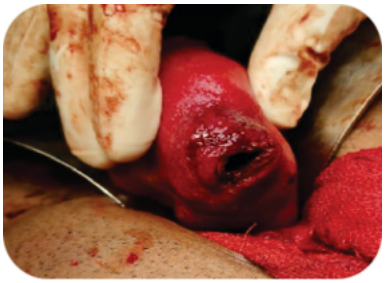

Figure 6: Ruptured Rudimentary Horn

Hemihysterectomy with ipsilateral salpingectomy was done to remove the rudimentary horn. The procedure was completed without any complications.Postoperative course was uneventful. Patient was discharged on day 8 after checking for the healthy stitches.

Case 4

In the fourth case, a 38 year old G5P2L2A2 with previous 2 LSCS, with 9 weeks gestation referred to our institution in view of excessive bleeding during MTP. Patient had a USG report suggesting bicornuate uterus with single live intrauterine gestation of 9 weeks in left horn of uterus. Patient was posted for MTP with Tubal Ligation. As soon as the MVA cannula was inserted, it was filled with blood for 6 consecutive times without any products of conception. Patient was referred to our hospital for further management. Patient was hypotensive and severe pallor was noted. Scar site was tender on palpation. Blood clots were present on per speculum examination. Active bleeding was noted through vagina. Per vaginal examination showed 8 weeks uterus with a separate mass of size 7 cm size was felt in continuity with uterus. After transfusing one bag of packed red cells, emergency laparoscopy was done. There was no evidence of hemoperitoneum or bicornuate uterus. A 10*12 cm sized hematoma was visualised in lower uterine segment on previous scar site across the entire length of the scar figure 7 and 8).

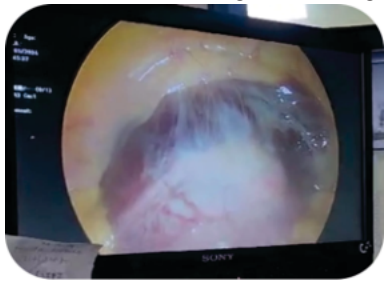

Figure 7: Laparoscopy Image With Hematoma Visualised In Lower Uterine Segment On Previous Scar Site Across The Entire Length Of The Scar.

Decision of laparotomy was taken.

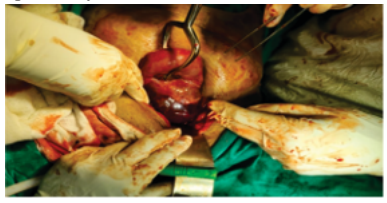

Figure 8: Laparotomy Image with Hematoma Visualised in Lower Uterine Segment on Previous Scar Site Across the Entire Length of the Scar.

Hematoma was removed with 200 ml clots. Also products of conception were removed and sent for histopathology (figure 9).

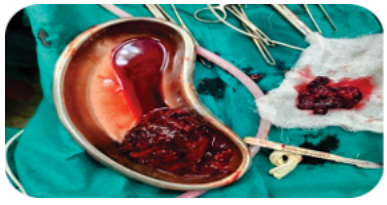

Figure 9: In Tray are 200 ml Clots. Products of Conception are Kept on Gauze.

Previous caesarean scar was seen in a ruptured condition (figure 10).

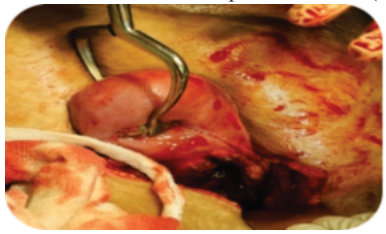

Figure 10: Previous Caesarean Scar Seen in a Ruptured Condition.

Uterine cavity was cleaned and bilateral uterine arteries were ligated. Bleeding was controlled. Bladder dissetion was done. Uterine scar was excised and uterus was reconstructed (figure 11). Intraperitoneal drain was kept. Estimated blood loss of procedure – 300 - 400 ml. Post operative, patient was hemo dynamically stable.

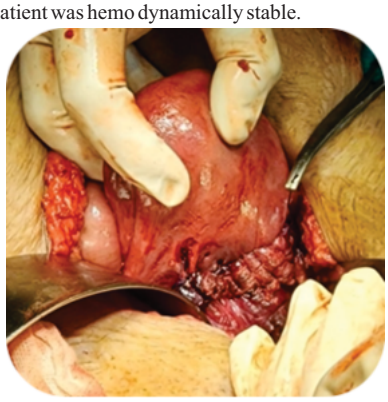

Figure 11: Reconstructed Uterus.

Patient passed a blood clot per vaginally post procedure. Therefore, Inj Methotrexate 60 mg was given to the patient in view of remnant trophoblastic activity, if any. Serial Beta HCG values were as follows:

POD - 0	93,872 mIU/ml
POD - 5	5,800 mIU/ml
POD - 11	390 mIU/ml
POD – 15	70 mIU/ml
POD - 21	8 mIU/ml

Histopathology report was confirmatory of presence of chorionic villi. Indirect Coombs Test was negative, therefore Injection Anti D was given to the patient. Intraperitoneal drain was removed on POD – 5. Sutures were removed on POD-8 which were healthy. Patient was discharged and asked to follow up for sterilization. Husband was counselled for vasectomy.

Despite of advances in radiodiagnosis, still the ectopic pregnancies pose a diagnostic challenge. Our case series mainly focuses on the rare and diagnostically challenging cases of ectopic pregnancies that we managed in our institution in a duration of 3 months.

Case No.	Clinical Diagnosis	USG Findings	Laparotomy Findings	Blood Loss/Clots
1	Ruptured Ectopic	Ruptured Ectopic	Ovarian Ectopic	170 CC CLOTS
2	Ruptured Ectopic	Ruptured Ectopic	Tubal Ectopic	500 CC CLOTS
3	Ruptured Ectopic	Adnexal Mass	Unicornuate Uterus With Ruptured Non Communicating Horn	1200 CC CLOTS
4	Perforation At Scar Site During Mtp	Bicornuate Uterus With Live Pregnancy In Left Horn	Hematoma Over Caesarean Scar With Scar Ectopic	200 CC CLOTS

DISCUSSION

Ectopic pregnancy causes 75% of maternal death in first trimester. 9-13% of all pregnancy related deaths occur due to ectopic pregnancy (6). Ectopic pregnancies implant in different sites of fallopian tube, most commonly in the ampulla(70%) followed by isthmus(12%), fimbria (11.1%) and interstitium (2.4%)(7). Risk factors associated with ectopic pregnancy include previous ectopic pregnancy, tubal damage or adhesion from pelvic infection or prior abdomino-pelvic surgery, history of infertility, IVF treatment, increased maternal age, smoking etc.

Despite of advances in radiodiagnosis, still the ectopic pregnancies pose a diagnostic challenge.

CONCLUSION

Ectopic pregnancies are one of the major causes of maternal mortality in first trimester. The rate of this extrauterine pregnancy is increasing day by day due to increased maternal age, smoking, in-vitro fertilization treatment, insufficient knowledge about the proper use of contraceptive pills, increased rate of pelvic inflammatory disease and poor hygiene mainly in the developing countries. High index of suspicion, early ultrasonography, serum beta-HCG levels help in the early diagnosis of ectopic pregnancy. Unusual mode of presentation of ectopic pregnancy other than tubal rupture and yespresentation beyond early first trimester should be kept in mind when managing a patient of ectopic pregnancy.

Patient's haemodynamic condition should be assessed thoroughly before deciding the mode of treatment and the decision also depends on the beta-HCG levels, size of the gestational sac and patient's desire for future fertility. Determining an upper limit of beta-HCG value at which conservative management with Methotrexate can be given is yet to be clear. Appropriate surgical treatment requires advanced laparoscopic skills and techniques to manage or avoid uterine haemorrhage and to reconstruct the cornua in cornual ectopic pregnancy.

Awareness should be spread in remote areas regarding early treatment seeking in case of missed period & irregular menstrual bleeding or spotting, self-identification of signs and symptoms of pregnancy, early 1st antenatal visit, early identification of location of pregnancy by ultrasonography in hospitals. These are possible by educating the ground level workers under rural health mission and arranging health camps more frequently.

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