ORIGINAL RESEARCH PAPER

Obstetrics And Gynecology

UTERINE RUPTURE FOLLOWING LAPAROSCOPIC SALPINGECTOMY- A RARE CASE SCENARIO

KEY WORDS: Uterine Rupture, Laparoscopic Salpingectomy, Cornual Ectopic

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ABSTRACT

INTRODUCTION: Uterine rupture is an obstetric emergency accounting for 3% of total maternal deaths. Most common cause is giving way of a previous cesarean or hysterotomy scar. The incidence of rupture uterus following laparoscopic surgeries is extremely low.

CASE DETAILS: A 25year old, gravida 2, para 0, at 24+2 weeks of gestation, was brought to the emergency department with abdominal pain of sudden onset. She conceived 2months after laparoscopic salpingectomy, which was done in v/o cornual ectopic pregnancy. Ultrasound revealed uterine rupture and an emergency laparotomy was done. The entire amniotic sac was found in the peritoneal cavity with a rupture of the lateral wall of the uterus. Fetus delivered out, and uterus repaired in layers. Postoperative recovery was uneventful.

DISCUSSION: Complete uterine rupture is defined as a nonsurgical disruption of all the layers of uterus. A case report of Nishijima Y et al. on Uterine rupture at 26 weeks of pregnancy following laparoscopic salpingectomy emphasizes the importance of regular follow up of pregnant patients with prior uterine surgery.

CONCLUSION: Surgeons should ensure strict training of laparoscopic suture skills, limit the use of energy equipment, and ensure effective hemostasis by suturing and close the uterine defect with enough layers. Long term follow up of patients treated for cornual pregnancy with endometrial involvement is necessary.

INTRODUCTION :

1. With the increase in minimally invasive surgeries, laparoscopic management has become the dominant approach in the treatment of uterine disease in view of its superiority in terms of blood loss, post-operative pain, recovery period[1].
2. The incidence of rupture uterus following laparoscopic surgeries is extremely low.
3. Uterine rupture is an obstetric emergency accounting for 3% of total maternal deaths.
4. The most common cause of which is giving way of a previous cesarean or hysterotomy scar.

CASE DETAILS :

HISTORY:

A 25year old woman, gravida 2, para 0, at 24+2 weeks of gestation was brought to the emergency department with acute abdominal pain for 6 hours and three episodes of vomiting. She had undergone laparoscopic right salpingectomy 6 months back for right tubal ectopic at a private hospital. She had no records concerning the operation.

EXAMINATION:

Pulse rate: 108 bpm, Blood pressure 110/70 mm Hg. Abdominal examination -- fundal height 22-24 weeks with tenderness in the right iliac fossa.

INVESTIGATIONS: B positive , Hb:9g/dl, platelets 2.4lakhs /cumm, virals non reactive .

Ultrasound -- 4x2cm defect in the fundus at the right cornual end of the uterus with 8x7cm amniotic sac herniating into the abdominal cavity.

Figure no.1 USG showing fundal defect with herniated sac

MANAGEMENT AND INTRA-OP FINDINGS:

Emergency laparotomy was performed.Intra-operatively there was 200ml of hemoperitoneum. The entire amniotic sac with a fetus was found in the peritoneal cavity. There was a 6x5 cm uterine rupture at the right cornua. The right fallopian tube was absent. A male fetus of 550 gm along with placenta and membranes were delivered out through the defect. The defect was repaired in 3 layers with vicryl No.1. Left fallopian tube and bilateral ovaries normal. Complete hemostasis attained. The patient recovered well and was discharged after 7 days.

Figure no.2 showing herniated amniotic sac into the peritoneal cavity

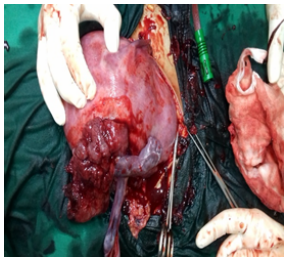

Figure no.3 showing separating placenta and fetal hand

Figure no.4 showing delivered fetus with the placenta

Figure no.5 showing a uterine defect of 6x5 cm

Figure no.6 after closing the defect in layers

DISCUSSION :

1. Uterine rupture is defined as a nonsurgical disruption of some or all the layers of the uterus (serosa, myometrium, and endometrium). It may be

a) Complete -- Uterine cavity communicating with the peritoneal cavity. All or part of the fetus is in the peritoneal cavity with significant bleeding from the edges of the scar or extension of the rent.

b) Incomplete – Visceral peritoneum is intact, or the rent may have extended to the broad ligament. The fetus will be within the uterus, and minimal bleeding is noticed from the edges.

2. The incidence of uterine rupture is about 1 in 2000 births.
3. Risk factors for uterine rupture include a previous cesarean section or hysterotomy, myomectomy, cornual resection of the interstitial fallopian tube, previous minor procedures.
4. The operative techniques and energy sources used during the surgery and inter-pregnancy interval affects the chances of uterine rupture.
5. In a study by An-Shine Chao et al[2] who retrospectively analyzed laparoscopic uterine surgeries as a risk factor for uterine rupture during pregnancy over 15 years period, found that 59% uterine rupture occurred following laparoscopic procedure to the uterus. Amongst those studied, 2 cases had a history of laparoscopic wedge resection of cornual ectopic pregnancy.
6. A case report of Nishijima Y et al[3] on uterine rupture at 26 weeks following laparoscopic salpingectomy emphasizes the need to minimize the usage of cautery and the importance of regular follow up of pregnant patients with prior uterine surgery
7. A case report of Chatterjee J et al[4] on a rare sequel of uterine rupture following cornual ectopic pregnancy, stresses the need for a prolonged inter-pregnancy interval and explaining the risk of uterine re-rupture in future pregnancies.

CONCLUSION :

Long term follow up of patients treated for cornual ectopic pregnancy is necessary. Suturing the uterine wall in multiple layers to reinforce the defect is advisable. In addition, the use of cautery should be minimized. Patient counseling and appropriate birth spacing are of paramount importance in reducing the chance of uterine rupture in future pregnancies.

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