



Quick Response Code

An unusual case of abdominal pregnancy after bilateral tubal block

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About the Author



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ABSTRACT

Here, we report a rare case of abdominal pregnancy after left-sided proximal tubal occlusion and right-sided salpingectomy. A 28-year-old patient came to us with a history of primary infertility. On investigations, left mid-tubal block and right hydrosalpinx were seen. Laparoscopic right salpingectomy with left proximal tubal occlusion was done. *In vitro* fertilization was done, but result was negative. One and a half months later, the patient presented with amenorrhea of 6 weeks and Transvaginal sonography showed gestation sac in the left adnexa. Emergency laparoscopy was done. The left tube was skeletonized after adhesiolysis, but no pregnancy was seen in the tube. Gestational sac was identified in the lateral pelvic wall. Severe bleeding was encountered during removal and sac was finally removed after laparotomy. Histopathological examination (HPE) of the tube showed endometriosis and HPE of the sac showed trophoblastic tissue without any ovarian tissue. The absence of ovarian tissue in HPE of sac confirms this case as abdominal pregnancy.

Key Words: Abdominal pregnancy, hydrosalpinx, proximal tubal occlusion, Studdiford's criteria

INTRODUCTION

The incidence of ectopic pregnancy is estimated to be 1%–2% and majority (95%) of these pregnancies are located in the extracornual portion of the fallopian tube. About 5% pregnancies occurs in the cervix, ovary, previous cesarean scar, interstitial portion of the fallopian tube, and abdomen.^[1]

Cases of ectopic pregnancy after tubal ligation have been documented in literature.^[2-4] However, based on literature search, we failed to find any document regarding ectopic pregnancy after one-sided salpingectomy and one-sided proximal tubal occlusion. Here, we present a case of left-sided abdominal pregnancy after right-sided salpingectomy and left-sided proximal tubal occlusion.

CASE REPORT

A 27-year-old female presented at our clinic with a history of primary infertility of 4 years in May 2015. She gave a history

of laparotomy in 2013 for myomectomy (48 mm × 34 mm left infracornual panmural myoma distorting the uterine cavity), cystectomy of endometrioma (31 mm endometrioma in the left ovary), and adhesiolysis. She had also undergone laparoscopy in 2014 for repeat bilateral ovarian cystectomy. Intraoperative notes also showed dense adhesions and right-sided hydrosalpinx. Right-sided fimbrial dilatation followed by positive chromopertubation test was done.

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Anti-Mullerian hormone (AMH) 4 months after second surgery was 0.05 ng/ml.

On initial examination, her vitals were normal and pelvic findings showed bulky, nontender uterus with restricted mobility. No mass was felt in adnexa. Transvaginal sonography showed right ovarian cysts of 16 and 17 mm diameter and left ovarian cyst of 12 mm × 16 mm diameter, anterior upper body intramural uterine fibroid (FIGO Class 4) of size 20 mm × 15 mm and posterior upper body intramural fibroid (FIGO Class 4) of size 14 mm × 12 mm, and right adnexal fluid space. Her hysterosalpingogram showed right hydrosalpinx and left mid-tubal block [Figure 1]. AMH was 0.32 ng/ml. Husband's semen analysis showed teratozoospermia. The patient was informed about her low AMH and was counseled about her chances of pregnancy with *in vitro* fertilization (IVF) and option of donor oocytes was also given. The patient opted for IVF with donor oocytes.

In lieu of hydrosalpinx, the decision for salpingectomy was taken. Laparoscopy was planned with consent for laparotomy. During laparoscopy, extensive omental adhesions were seen with anterior abdominal wall, and bowels were adherent to both tubes and fundus of the uterus. Pouch of Douglas was completely obliterated. The right tube was skeletonized and gross hydrosalpinx measuring 3 cm was seen [Figure 2]. Right salpingectomy was done. The left tube was completely buried under bowel adhesions, so proximal end of the tube was coagulated using bipolar and cut with scissors, disconnecting the tube from the uterus. Nodules of size 3mm to 4mm were seen scattered all over the omental surface. The histopathology report of the tube showed chronic salpingitis with mononuclear cell infiltration and vascular congestion. Postoperatively, Mantoux test was done with 5 Tuberculin unit (5TU) which showed 16 mm induration. In view of intraoperative findings and positive Mantoux test, decision was taken to start anti-Koch's therapy (AKT) and the patient was given AKT for 6 months. After the completion of AKT, the patient underwent IVF with donor oocytes in January 2016. The beta-human chorionic gonadotropin (b-hCG) after 2 weeks was <2 IU/L. Luteal support was stopped and the patient had her menses after 3 days. The patient again revisited our clinic in March 2016 with a history of amenorrhea of 6 weeks 2 days. Transvaginal sonography was done which showed a complex left adnexal tubo-ovarian mass [Figure 3]. Serum b-hCG was done which showed value of 12,649 IU/L. Her Hb was 11.8 g%. A diagnosis of ectopic pregnancy was made. The patient was prepared for laparoscopy with consent for laparotomy. Intraoperatively, frozen pelvis was

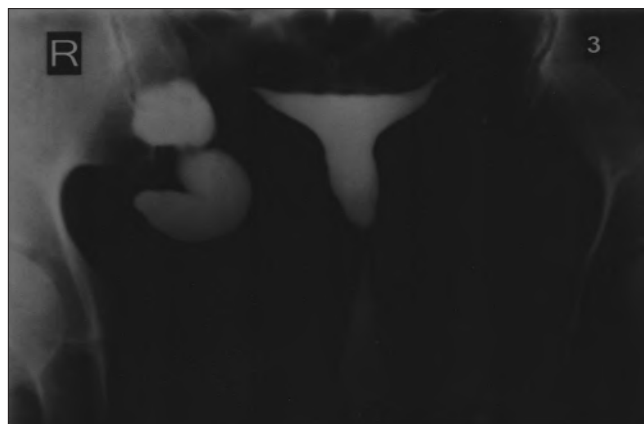


Figure 1: Hysterosalpingogram showing right hydrosalpinx with left cornual block

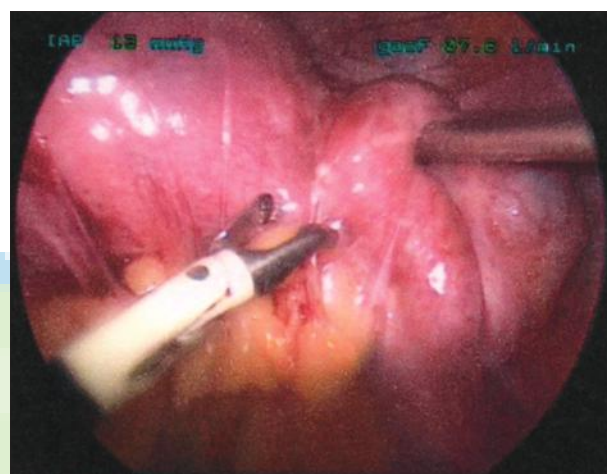


Figure 2: Right hydrosalpinx with extensive pelvic adhesion during laparoscopy



Figure 3: Transvaginal sonography showing complex left adnexal mass

observed and the left tube was buried among dense bowel adhesions [Figure 4]. The left tube was skeletonized, but no pregnancy was seen in the tube [Figure 5]. To prevent further complications, left salpingectomy was done.

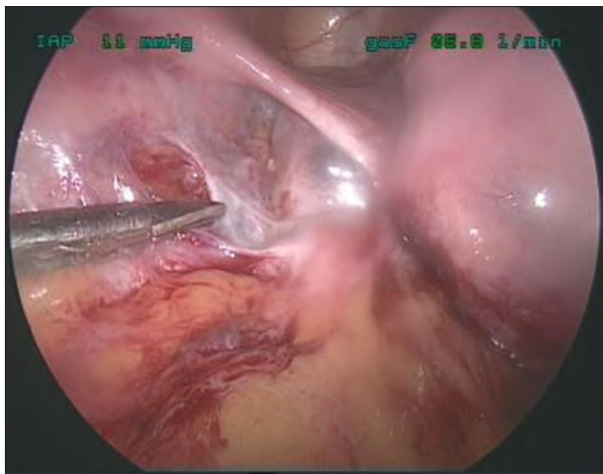


Figure 4: Left adnexa buried under adhesion

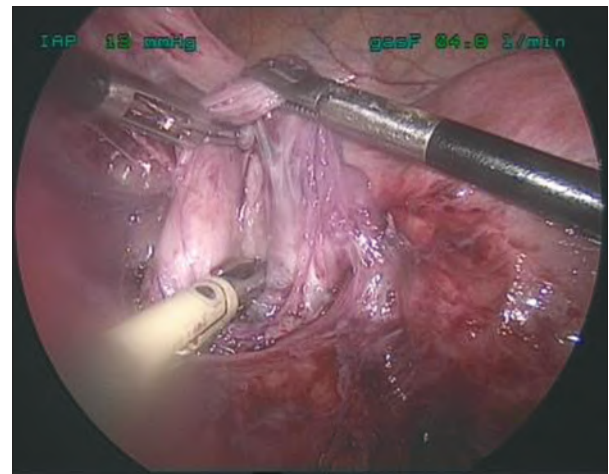


Figure 5: Skeletonized left tube

Intraoperative transvaginal ultrasound scan was done and the complex mass was relocalized. The ovaries could not be identified separately and provisional diagnosis of ovarian pregnancy was made. Further dissection in the pelvis was done and sac was identified in the left adnexa. Profuse bleeding was encountered from the sac during isolation of the sac. Attempts were made to control the bleeding but failed. Immediate laparotomy was done and bleeding was controlled. The sac measuring 4 cm was isolated. The sac was densely adherent to the lateral pelvic wall, so the lateral part of the sac was left behind. The left ovary could not be identified separately. Hemostasis was achieved and the abdomen was closed. The tube and the sac were sent for histopathology.

Section from tube showed areas of endometriosis with focus of decidualized stroma. Section from adnexal tissue showed degenerated product of conception with trophoblastic cells. No ovarian tissue was seen, so retrospectively diagnosis of primary abdominal pregnancy was made. Repeat b-hCG after 2 days showed a value of 950.94 IU/L. The patient was followed with weekly b-hCG and within 3 weeks b-hCG became negative.

DISCUSSION

Abdominal pregnancy is very rare, incidence being approximately 1 in 10,000 live births and 9.2 per 1000 ectopic pregnancies.^[5] Most abdominal pregnancies are secondary abdominal pregnancy where the embryo had primarily implanted in the fallopian tube and extruded or expelled and then secondarily implanted itself on another intra-abdominal surface.^[5]

In primary abdominal pregnancy, the conceptus implants on the peritoneal surface. Studdiford's criteria used to

diagnose primary abdominal pregnancy are described as (1) the presence of normal bilateral tubes and ovaries with no evidence of recent or past pregnancy. (2) No evidence of a uteroperitoneal fistula. (3) The presence of pregnancy related exclusively to the peritoneal surface early enough to eliminate the possibility of secondary implantation after primary tubal nidation.^[5,6]

The sites of implantation can be omentum, pelvic sidewall, broad ligament, cul-de-sac, spleen, bowel, liver, diaphragm, and serosa of the uterus.^[6,7]

In our patient, the sac was located on the left lateral pelvic wall. Interestingly, left-sided proximal tubal occlusion was already done. Ectopic after proximal tubal occlusion could have occurred due to various reasons and the possible explanations given are tubal recanalization, formation of tuboperitoneal fistula, luteal pregnancy, misapplication of surgery, and theory of external migration of the sperm.^[2]

Presentation of patients with primary abdominal pregnancy may vary greatly; however, in our case, due to early diagnosis, the patient was totally asymptomatic. Laparoscopic management becomes feasible in cases with early diagnosis. Uncontrolled bleeding and dense pelvic adhesions due to previous three surgeries made our case difficult and laparotomy was taken as a last resort. Nevertheless, timely diagnosis and intervention helped us in the successful management of the patient.

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Conflicts of interest

There are no conflicts of interest.

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