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Tubal Ectopic Pregnancy with Secondary Implantation in Pouch of Douglas: A Case Report

Bimita Mahat[1]*, Swati Gupta[1], Sangita Sharma[2], Suresh Thapa[2] and Akriti Bharati[3]

[1]*Department of Obstetrics and Gynecology, Kathmandu Medical College, Nepal*

[2]*Nepalese army institute of health sciences, COM , Tribhuvan University, Nepal*

[3]*Vatsalya IVF Center, Nepal*

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***Corresponding author:** Bimita Mahat, Department of Obstetrics and gynecology, Kathmandu Medical College, Nepal

Abstract

An ectopic pregnancy is when a fertilized egg implants itself outside of the womb, usually in one of the fallopian tubes. It is a significant cause of maternal mortality and is still considered one of the important emergencies of gynecology which accounts for approximately 1-2% of all pregnancies. Abdominal pregnancy refers to a pregnancy, that has implanted in the peritoneal cavity, external to the uterine cavity and fallopian tubes. It is a potentially life-threatening form of ectopic gestation. In this article, we report a rare case of abdominal pregnancy, that was implanted in a Pouch of Douglas.

Keywords: Pregnancy; Gestational; Fallopian tubes; Ectopic

Case Report

A 23 years old Gravida 3 with living 1 presented to emergency department with a 2-hour history of severe, spasmodic, colicky pain over right iliac fossa and vaginal bleeding. She also complains nausea and vomiting in the last 5 days, when she tests urine pregnancy test at home which came out to be positive. She had normal vaginal delivery 5 years back and history of medical abortion 1 year back. Her last mensural cycle was approximately 5 weeks back and cycle was regular of 28 days, no any dysmenorrhea [1]. She had no any significant history including pelvic inflammatory diseases, vaginitis, abnormal vaginal discharge, dilatation and curettage, using contraceptive (cupper-T), diabetic, hypertension and thyroid disorder. Five days back when she came out to be pregnant, she took mifepristone followed by the misoprostol for the medical termination of pregnancy. After which she only had scanty PV bleeding. Today she develops sudden onset of pain over hypogastrium and associated to per vaginum bleeding 2 pads fully socked, but no any passage of fleshy masses [2].

She looks ill, diaphoretic, exhausted and pale. However, vitals were with in normal limit. No sign of hypovolemic shock. An abdominal examination revealed guarding and tender at suprapubic region where as uterus was not palpable. Vaginal examination, she had mild tenderness over right adnexa with no any cervical motion tenderness and her internal OS was closed. A speculum examination noted bluesish cervix, smeared with blood [3]. Her routine blood examination was all normal and she was rhesus negative (O negative). Bedside transabdominal ultrasonography showed uterus size 8.6 × 3.3 cm endometrial thickness-4mm, uterine cavity empty, Rt adnexae simple cyst with gestational sac noted on pouch of Douglas. Embryonic pole noted measuring 0.54cm by LRL corresponding to 6 weeks 2 days gestation, embryonic cardiac activity noted ≈ 151 bpm well defined echonic lesion measuring aprox 5×5 cm noted in pouch of douglas and mild free fluid noted in Morrison space and pelvic cavity. After rule out other differential diagnosis which include ovarian mass and gestational trophoblsastic disease, a diagnosis of an ectopic pregnancy was made.

Here we proceeded to perform an open laparotomy following the diagnosis. Upon entry into the abdominal cavity, there was Haemoperitoneum of around 700 ml with clots measuring around 200 ml. Right sided hydrosalpinx was swollen with blood tricking down from the fimbral end and 5×5 cm ovarian cyst with straw

colored fluid around 20 ml was noted. A large complex mass was seen in pouch of Douglas (POD) adhesion with the sigmoid colon corelated with 7 weeks of gestational embryonic sac. The mass was detached from sigmoid colon and POD and removed carefully. The right tube appears to be swollen and we proceeded to performed salpingectomy. We continue to performed peritoneal lavage and removed the ovarian cyst and reconstructed it carefully [4]. Based on the laparotomy findings case was diagnosed as secondary abdominal pregnancy subsequent to tubal abortion. Her post operative period was uneventful and, she recovered well following surgery therefore discharge on third postoperative day.

Discussion

About 1- 2% of all pregnancies are ectopic with more than 95% occurring within the fallopian tubes. The common sites for ectopic pregnancy are interstitial (2.4%), isthmic (12.0%), ampullary (70.0%), fimbrial (11.1%), ovarian (3.2%), or abdominal (1.3%). Some risk factors that increase the incidence of ectopic pregnancies are a rise in assisted reproductive technology, an increased maternal age on conception, past pelvic infections leading to tubal diseases, and a history of ectopic gestations. The implantation locations in abdominal pregnancy in earlier reports have included the following: the omentum, peritoneum of the pelvic and abdominal cavity, uterine surface and abdominal organs such as the spleen, intestine, liver, large blood vessels in the abdominal cavity, diaphragm, and others. Rarely, it may reach advanced gestation. A viable fetal outcome is a rare event. Most of them are halted prematurely due to poor fetal prediction and increased possibilities of maternal mortality secondary to haemorrhagic shock following spontaneous placental detachment. A high index of prognostication is necessary for making a diagnosis of abdominal pregnancy and for its timely management after the correct diagnosis [5]. Cervical pregnancies or pouch of Douglas pregnancies have been mentioned in the reports very few times. A high index of suspicion in those who present with persistent abdominal pain, gastrointestinal disturbances, painful fetal movements, abnormal presentations, uneffaced cervix, vaginal bleeding, and syncope is necessary to make a diagnosis of abdominal gestation. Abdominal pregnancy is associated with various signs and symptoms due to variable location. A history of regular menstrual cycle and absence of delay in menses has been reported in a primary omental pregnancy who presented with severe abdominal pain.

The diagnosis of abdominal pregnancy is often missed during routine ultrasonography. The classical ultrasound finding of abdominal pregnancy is the absence of myometrial tissue between the mother's bladder and the pregnancy especially at advanced gestational age and an empty uterus. Other findings that aid the diagnosis comprise a deficient description of the placenta, oligohydramnios, and uncommon fetal lie. It is challenging to distinguish it from tubal ectopic pregnancy in early gestation when it implants in close proximity to the adnexa. Non-contrast Magnetic Resonance Imaging (MRI) is a sensitive, specific, and accurate technique for assessing ectopic pregnancy and may assist in surgical management. Irregular trends in serial Human Chorionic Gonadotropin (HCG) values observed in a tubal ectopic pregnancy are usually not seen with abdominal pregnancy. Other differential diagnosis includes ectopic pregnancy in different sites, intrauterine pregnancy in a rudimentary uterine horn, abruptio placenta, and uterine rupture. Previous literature reports on the therapeutic regimen include conservative treatments and surgical treatments [6]. Conservative treatments include selective placental vascular embolization, ultrasound-guided drug injection in the gestational sac, or maternal systemic drug therapy. Conservative treatments may need a long follow-up period. A previous study reported that a 14-week gestation was terminated by ultrasound-guided induction, and the fetus and placenta remained in site. The follow-up visit revealed that the gestational sac degraded very slowly, and only a small amount amniotic fluid volume was reduced at 9 months after surgery.

The management regimen for ectopic pregnancies includes conservative treatments and surgical treatments. Conventional methods comprise selective placental vascular embolization, ultrasound-guided drug injection in the gestational sac, or maternal systemic drug therapy. These therapies may need a long follow-up period. Surgical treatment is the most common treatment for ectopic pregnancy. Although laparotomy has an irreplaceable edge over laparoscopic surgery in times of immediate and satisfactory hemostasis, there are even numerous reports on laparoscopic surgery for the treatment of abdominal pregnancy, specifically in the earlier stages of gestation [7]. However, before the operation, the area of implantation of the gestational sac should be evaluated via imaging as much as practicable, and a multidisciplinary team should collaborate to prepare for hemostasis and preserve, and pick selective embolization, if necessary. Abdominal pregnancy at an early gestational period (first trimester) can be laparoscopically managed as removal of the small and less vascular placental tissue is more straightforward. Anticipatory management to achieve fetal maturity has been successfully done in rare cases. Extremely tight maternal monitoring is critical for those who opt to wait for fetal maturity. In late gestation, preoperative selective arterial embolization may be attempted to preclude haemorrhage during the expulsion of the large placenta. Laparotomy is done to prevent life-threatening maternal bleeding that may occur during placental detachment. Cutting the umbilical cord and leaving the placenta in situ is one possibility. The patient can be monitored without additional interference or active intervention using arterial embolization or methotrexate to quicken involution. Ultrasonographically driven feticide of a 14.5-week gestation to deter further growth and begin the cycle of natural resorption has also been reported.

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