

Four Recurrent Ectopic Pregnancies in A Single Patient

Khalida Parveen¹, Rubina Mushtaq²

¹Assistant Professor, Department of Obstetrics & Gynaecology, Combine Military Hospital CMH, Rawalpindi,

²Professor, Department of Obstetrics & Gynaecology, Combine Military Hospital CMH, Rawalpindi.

Correspondence: Maj.Dr. Khalida Parveen, Assistant Professor, Department of Obstetrics & Gynaecology, Combine Military Hospital CMH, Rawalpindi, Pakistan.
E-mail: khalida83arain@gmail.com

Abstract

Ectopic pregnancy is a life-threatening complication occurring in approximately 1% of all pregnancies. It still continues to be an important cause of maternal morbidity and mortality. Combination of clinical and ultrasonographic findings, consecutive levels of human chorionic gonadotrophin, are important for diagnosis. Expectant management and surgical or medical treatment are the options for ectopic pregnancy. The rate of recurrence rises in patients with a history of previous ectopic pregnancy irrespective of mode of management. We present here a case series of four consecutive patients presenting with recurrent ectopic pregnancies.

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Introduction

An ectopic pregnancy occurs in around 1% of all pregnancies.¹ Despite major advances in its early diagnosis and treatment, ectopic pregnancy continues to be a major cause of maternal mortality, morbidity, and early pregnancy loss. It is responsible for 73% of early pregnancy mortality. The incidence of ectopic pregnancy has increased markedly over the last three decades, due to multiple factors such as the increased prevalence of pelvic inflammatory disease (PID), use of assisted reproductive technology, and increasing maternal age.²

In addition, there are other risk factors such as tubal surgery, previous history of ectopic pregnancy, in utero diethylstilbesterol exposure, pregnancy with an intrauterine device and multiple sexual partners. The rates of recurrence of ectopic pregnancy post salpingectomy and salpingotomy are 10% and 15%, respectively. Moreover, the incidence of recurrence in patients who have had previous ectopic pregnancy is 8-17%, whereas 30% of recurrence occurs after two ectopic pregnancies and the risk greatly increases as a number of previous ectopic pregnancy increases.^{2,3} We present a case series of four patients with recurrent

ectopic pregnancy and to review evidence base on the management of recurrent ectopic pregnancies.

Case Report

A 32-years-old woman, gravida 6, para 1+4, married for 9 years was admitted through the outpatient clinic, complaining of 6 weeks of gestational amenorrhea and on & off abdominal pain. Her previous menstrual cycles were regular in 30 days, with the average flow and no dysmenorrhea. There was no past history of PID. The couple practiced coitus interruptus for contraception.

The patient had a history of three previous ectopic pregnancies, LSCS, and miscarriage. The first one was a right tubal ectopic pregnancy in 2008 for which she underwent a salpingostomy by laparotomy. The second one was detected in right tube and treated with methotrexate in 2009. Later on, in 2009 she had a miscarriage at 5 wks and was conservatively managed. In 2010 she was again diagnosed with right tubal ectopic pregnancy and underwent salpingectomy this time. In 2012 she delivered a healthy full-term baby girl by LSCS.

The latest ectopic pregnancy occurred in October 2016 when patient presented to the outpatient with 6 weeks

of gestational amenorrhea and abdominal pain. Transvaginal ultrasonography showed an empty uterine cavity and a gestational sac in the right adnexa without a fetal cardiac activity and there was mild intra-abdominal free fluid. Laboratory tests showed hCG levels of 3500 mIU/mL on 25-10-16, as she was vitally stable and ultrasound findings were favorable for medical treatment. The patients was treated medically with Inj. methotrexate on 26-10-16.

Single-dose protocol of methotrexate (50 mg/m²) was administered intramuscularly on day 1, and the hCG value was measured at 4782 mIU/mL and 6702 mIU/mL respectively on days 4 and 7. On 30-10-16 she started to have pain abdomen and presented in emergency with vitals of pulse 102/min and BP 100/60 mmHg.

She underwent emergency laparotomy on 30-10-16. Intraoperatively there were moderate adhesions between rectus muscle and sheath, and 5 cm non-ruptured ectopic in ampullary region of left tube. There was no haemoperitoneum and left salpingectomy was done. (Figure I & II)

The patient remained stable in the postoperative period, detailed counseling regarding future fertility and IVF was done.



Figure I: Left salpingectomy underway



Figure II: Non ruptured ectopic dissected

Discussion

Pregnancies in the fallopian tube account for 95% of all ectopic pregnancies.¹ Out of this approximately 92% of ectopic pregnancies occur in the ampullary region of the fallopian tubes, 2.5% as interstitial/cornual ectopic pregnancies whereas other less common forms include cervical, ovary, and peritoneum.^{2,3} Ectopic pregnancy has become a major health problem in reproductive age group women owing to the increased prevalence of pelvic surgery, PID and assisted reproductive techniques. It can have a wide spectrum of clinical presentation. Ectopic pregnancy can masquerade many gynecological and non-gynecological conditions as clinical presentation could be varied. The classic triad of amenorrhoea, abdominal pain, and vaginal bleeding is presented in only 50% of patients with ectopic pregnancy.⁴

The differential diagnosis includes urinary tract infection, kidney stones, diverticulitis, appendicitis, ovarian neoplasms, endometriosis, leiomyomas, pelvic inflammatory disease, and pregnancy-related conditions.⁵

A proper menstrual history should always be taken in all women of reproductive age group. Urine pregnancy test should be done if required to exclude pregnancy because it remains an important cause of morbidity and mortality in women of childbearing age. Any woman with a previous history of ectopic pregnancy is high risk for recurrent ectopic so high risk of suspicion should be kept.^{3,4}

Ultrasound and hCG levels are the primary tools in the diagnosis of ectopic pregnancies. Ultrasonographic findings are useful to differentiate an ectopic pregnancy from an early miscarriage. An earlier diagnosis of ectopic pregnancy is possible with hCG and serum progesterone screening, transvaginal ultrasonography, and most importantly, clinical suspicion and with care taken history.^{5,6}

The expectant management, surgical or medical treatments are the management options for ectopic pregnancy. Expectant management may be ideal for the patients with low (<1000 IU/L) or declining hCG levels. Patients who are hemodynamically stable, willing and able to comply with post-treatment follow-up, hCG concentration ≤ 5000 mIU/mL, and no fetal cardiac activity are optimal candidates for medical treatment with methotrexate. Hemodynamically unstable patients, heterotopic pregnancy with a viable intrauterine pregnancy, lack of timely access to a medical institution for management of tubal rupture, contraindications to methotrexate and failed medical therapy are the indications for surgical treatment. Surgical treatment includes laparotomy or laparoscopy depending on conditions and facilities available. Salpingectomy is preferable to salpingostomy if the contralateral tube is healthy, as it is associated with lower rates of persistent trophoblastic tissue and subsequent recurrence while having the same intrauterine pregnancy rates.^{3,7}

Damage to the fallopian tubes following salpingostomy causes the ectopic implantation of the blastocyst. Because of this, recurrent ectopic pregnancy and infertility are not the unexpected results of ectopic pregnancy. Achieving a subsequent intrauterine pregnancy after an ectopic pregnancy, changes from 38% to 89%. The incidence of recurrence of ectopic pregnancy is approximately 15 percent. Recurrent ectopic pregnancy rate after salpingectomy was lower than after salpingostomy. After methotrexate treatment, the recurrent ectopic rates ranged between 10.2% to

18.7%. The risk recurrence is about 30 percent after two ectopic pregnancies and this incidence increases as no of ectopic pregnancies increases in a same patient.⁷

In our case, the patient had fourth ectopic pregnancy and previous history of recurrent ectopic pregnancy after salpingostomy, whereas this time it was after medical treatment. The patient presented with clinical features and HCG which do not fit into expectant or medical management so she was not a suitable candidate for these management options. Hence a decision for surgical management was taken.

Conclusion

Ectopic pregnancy is a risk factor for future ectopics. It is important that early beginning of the transvaginal ultrasonographic examinations and serial measurements of hCG levels are taken in the evaluation of patients with a history of prior ectopic pregnancy, especially when the confirmed pregnancies are detected.

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