

A CASE REPORT ON FAILURE OF MEDICAL MANAGEMENT OF TUBAL ECTOPIC PREGNANCY

Gynaecology

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ABSTRACT

Ectopic pregnancy remains the leading cause of early pregnancy related deaths. Medical management is preferred for most ectopic pregnancy with methotrexate extensively as an alternative to surgical management. Over 87% of treated cases with methotrexate by multi-dose therapy has successful outcome. Prior to medical therapy, certain pre-requisites are required to be fulfilled for successful outcome of medical therapy such as hemodynamic stability, initial serum beta-hCG levels(<5000 IU), ectopic gestational sac size(<3.5 cm) and absent fetal cardiac activity. Not fulfillment of these criterions may lead to failure of medical therapy. We present a case of 28 years old female presented to emergency department with complains of abdominal pain, bleeding P/V with 6 weeks of pregnancy. She was hemodynamically stable with serum beta-hCG levels 4280 IU. On USG-Pelvis: empty uterine cavity, 0.9X1.1 cm sized gestational sac with internal yolk sac like structure with PRESENT fetal cardiac activity in right adnexa suggestive of RIGHT SIDED TUBAL ECTOPIC PREGNANCY. She underwent medical multidose methotrexate therapy, but there was no fall of beta-hCG levels, so she was treated with laparoscopic right sided partial salpingectomy.

KEYWORDS

INTRODUCTION :

An ectopic or extrauterine pregnancy is one in which the blastocyst implants anywhere other than endometrial lining of the uterine cavity. Ectopic pregnancy remains the leading cause of early pregnancy related deaths. Still, current diagnostics and treatment protocols have resulted in substantial decline in fatality rates. Without interventions, an ectopic tubal pregnancy can lead to tubal abortion or tubal rupture or spontaneous resolution. Medical management is preferred for most ectopic pregnancy with methotrexate extensively[1] as an alternative to surgical management for asymptomatic, motivated and who has resources to be compliant with surveillance. Over 87% of treated cases with methotrexate by multi-dose therapy has successful outcome[2]. Prior to medical therapy, certain pre-requisites are required to be fulfilled for successful outcome of medical therapy such as hemodynamic stability, initial serum beta-hCG levels(<5000 IU), ectopic gestational sac size(<3.5 cm) and absent fetal cardiac activity. Not fulfillment of these criterions may lead to failure of medical therapy. Surgical choices include mainly salpingectomy or salpingostomy. Failure rate is similar either for medical and surgical management.

ECTOPIC PREGNANCY



CASE REPORT:

A 28-year-old woman referred to us from Bapunagar private hospital as 1&1/2 month amenorrhoea (6 weeks maturity), Beta-hCG -4280, On USG- empty uterine cavity, (?) Ectopic pregnancy. She had c/o Lower abdominal pain & Bleeding per vaginam since 3 hours. There was no history of vaginal discharge, fever, or weight loss or trauma.

On arrival, UPT was done which showed +ve result.

Menstrual history : Pt had h/o 1&1/2 month amenorrhoea, her LMP was 19-10-2017 . Her past menstrual cycles were regular.

Obstetric history : The patient had a history of one full term normal vaginal delivery/Fch/3.5yr/HSD/L

Past, Personal & Family history was unremarkable.

Physical Examination

Her general physical and systemic examinations were unremarkable.

Her abdomen was soft, there was no any guarding,rigidity or tenderness on examination. There was no erythema of overlying skin or warmth on Touch.

Upon local examination-

P/S- Old brownish discharge was +nt, No active bleeding demonstrable.

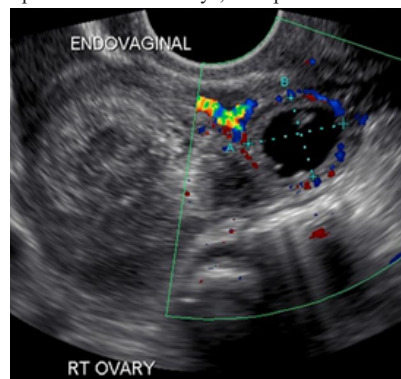
On P/V- Uterus was normal size, anteverted, B/L fornices free. There was no fornices fullness or cervical motion tenderness.

Diagnostic Assessment

Baseline investigations were performed. Her Hb- 12.9 gm/dl, TC- 9,800/cumm & Plt- 2.38 lakh/cumm

USG PELVIS- Approx 9x11mm sized thick walled cystic lesion is noted in right adnexa, with peripheral vascularity with internal yolk sac like structure. Right ovary is seen separately from lesion. Findings s/p/o right sided tubal ectopic.

G-sac corresponds to 5 weeks 4 days, Fetal pole with FCA seen.



MANAGEMENT

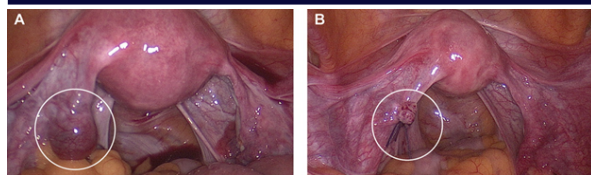
Pt had been counseled & explained both Medical & Surgical management with risk & benefits of both approach. She had agreed to undergo medical management.

Inj. Methotrexate 50mg IM given on D1, D3 & D5.

Her Beta-hCG level on D1, D3 & D5 was 4280, 4085 and 4630 mIU/ml, respectively.

There was no 15% fall of Beta-hCG level on D5 from D3.

After which Laparoscopic Right sided partial salpingectomy performed under GA.



DISCUSSION–

Failure of medical therapy in tubal ectopic pregnancy

Nearly 95% of ectopic pregnancies are implanted in the various segments of the fallopian tube and give rise to fimbrial, ampullary, isthmic or interstitial tubal pregnancies, among which ampulla is the most frequent site followed by isthmus.

Earlier patient presentation and more precise diagnostic technology typically allow identification before rupture, in which symptoms and signs of ectopic pregnancy are often subtle or even absent. With later diagnosis, a 'classic' presentation is characterized by the triad of delayed menstruation, pain, and vaginal bleeding or spotting.

Ectopic pregnancy can be diagnosed by physical findings, transvaginal sonography, initial and subsequent falling and rise pattern of serum beta-hCG levels, and diagnostic surgery. Current serum and urine pregnancy tests that use ELISAs for beta-hCG are sensitive to levels of 10-20 mIU/ml and are positive in >99% of ectopic pregnancies[6]. With bleeding or pain with positive pregnancy test result, an initial TVS is typically performed to identify gestation sac location. Barnhart and colleagues(1994) reported that an empty uterus with serum beta-hCG levels >1500 mIU/ml was 100% accurate in excluding a live uterine pregnancy[7].

Treatment options for ectopic tubal pregnancy include, medical and surgical approaches. Medical therapy traditionally includes anti-metabolite methotrexate, which is highly effective against rapidly proliferating tissue such as trophoblast, and overall ectopic tubal pregnancy resolution rates approximate 90% with its use. For ease and efficacy, intramuscular methotrexate administration most frequently given for ectopic tubal pregnancy resolution, and single-dose and multi-dose methotrexate protocols are available.

The best candidate for the medical therapy is the woman who is asymptomatic, motivated and compliant. With medical therapy, some classic predictors of success include a low serum beta-hCG levels, small ectopic pregnancy size, absent fetal cardiac activity. Of these, initial serum beta-hCG level is the single best prognostic indicator of successful treatment with methotrexate therapy. Specifically, reported failure rates are 1.5% if the initial serum beta-hCG level is <1000 mIU/ml; 5.6% with 1000 to 2000 mIU/ml; 3.8% with 2000 to 5000 mIU/ml; and 14.3% when levels are between 5000 to 10000 mIU/ml[5]. The initial serum beta-hCG value is not a valid indicator of the no. of doses needed for successful resolution[8].

Many early trials also used 'large size' as an exclusion criterion, although these data are less precise. As per report, a 93% success rate with single dose methotrexate when the ectopic mass was <3.5 cm[9]. This compared with success rates between 87 to 90%, when the mass was >3.5 cm. Last, most studies report increased failure rates when there is fetal cardiac activity, in such cases 87% success rate reported[9].

Surgical choices include mainly salpingectomy or salpingostomy. Failure rate is similar either for medical and surgical management. In three randomized trials, 5 to 14% of women treated initially with methotrexate ultimately required surgery, whereas 4 to 20% of those undergoing laparoscopic resection eventually received methotrexate for persistent trophoblast[10,11,12,13].

CONCLUSION-

Women who are hemodynamically stable and small tubal diameter(<3.5 cm), no fetal cardiac activity, serum beta-hCG levels <5000 IU have similar outcomes with medical or surgical management. Despite lower success rates with medical therapy for women with larger tubal size, higher beta-hCG levels, and fetal cardiac activity, medical management can be offered to the motivated woman who understands the risks of emergency surgery in the event of treatment failure. Medical management of ectopic pregnancy requires total fulfilment of its pre-requisites for successful outcome. After failure of medical therapy, surgical management preferably

remains the main stay of treatment.

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