

Case Report

From Hurt to Healing; A Time Based Need to Review Cutoff of Medical Management of Ectopic Pregnancy

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Abstract

Ectopic pregnancy occurs when a developing embryo implants at a site other than the endometrium of the uterine cavity, most commonly within the fallopian tube. The incidence of ectopic pregnancy is estimated to be approximately 2% of all pregnancies but there is 4-fold increase in its incidence over the last 20 years. It is one of the most common gynecologic emergencies. Maternal mortality related to ectopic pregnancy has plummeted over the last two decades due to the availability of quantitative beta-human chorionic gonadotropin (b-hCG) testing, transvaginal ultrasound, and laparoscopy, which allow for early diagnosis and intervention.

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Introduction

Ectopic pregnancy refers to implantation of an embryo outside the endometrium. It is a medical emergency, but associated maternal mortality has significantly declined over the decades due to earlier diagnosis and treatment. Timely detection of ectopic pregnancy is contingent on having a high index of suspicion in all women of reproductive age, identifying patient risk factors, and then performing appropriate laboratory testing and imaging.¹ Early diagnosis of ectopic pregnancy is critical to reducing maternal mortality and improving treatment success rates, especially since many women have no identifiable risk factors.

In most normal pregnancies, the b-hCG level rises 65% to 100% every 48 hours for the first 4 weeks. Hemodynamically stable, asymptomatic women with a decreasing presenting b-hCG level < 1000 IU/L might be eligible for expectant management of ectopic pregnancy.² Methotrexate is administered intramuscularly at a dose of 50 mg/m² of body surface area. A reduction of < 15% in the b-hCG level between days 4 and 7 post-methotrexate may indicate that treatment is inadequate, and a second dose of methotrexate might be required.

Case Report

A 28 year normotensive, normoglycemic lady, married for 4 years G3P1A1 at 6+5weeks, with no alive issue referred from private clinic due to suspicion of ectopic

pregnancy on ultrasound. She was vitally stable with normal BMI. On arrival her trans-abdominal pelvic ultrasound was done showed empty uterus with gestational sac of 13mm=7weeks with no fetal pole in right adnexa. Her 1st serum b HCG was 12,400mIU/ml. Her b-hCG was repeated after 72 hours as pt. remained vitally stable but rather than falling, report was found to be a b-hCG of 18,699mIU/ml. As per guidelines, recommended management was operative laparoscopy but keeping in view of her stable vitals and small mass on TVS we decided to adopt medical management in this patient. We had taken the patient in our confidence and explained her our plan of management along with pros and cons. She agreed with it so we had given her 3 alternate doses of methotrexate along with injection folic acid on day 3rd, 5th and 7th of her admission. She was closely monitored during that time period and remained stable. Followed b-hCG levels were 6576mIU/ml after 2nd dose and 970mIU/ml after 3rd dose of methotrexate. She had serum beta HCG level of 28mIU/ml on follow up. She was reassured about successful treatment and discharged.

Discussion

The treatment modalities, eligibility criteria, necessary follow-up and pros and cons of each treatment option can help obstetrician to ensure patient safety and autonomy. Expectant management as well as medical management is a safe and effective option for a carefully

selected population of stable, asymptomatic women.⁴ Laparoscopy is the gold standard for surgical management of ectopic pregnancy. Clinical presentation, ectopic size, b-hCG level, and patient preference are all important to consider when recommending treatment options for ectopic pregnancy because these factors may influence treatment success, risk of recurrent ectopic pregnancy, and short-term fertility. MTX treatment is safe and effective. According to the statistics in the literature, the success rate of MTX treatment varies from 65 to 95%, with a mean rate of 82%, and the fertility rate with delivery after medical treatment for ectopic pregnancy is 67–80.7%, which is not less than that after conservative and radical surgery.⁵ Meanwhile, MTX does not damage ovarian function or increase the incidence of subsequent adverse pregnancy and birth outcomes in patients.⁶

Conclusion

NICE recommends offering surgery as first line of treatment to women with ectopic pregnancy who have b-hCG of 5000 mIU/ml but this cutoff need to be reconsidered in specific patients especially those who are hemodynamically stable along with small mass on TVS even with higher levels of b-hCG.

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