Case Report

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Unusual Presentation of Ectopic Pregnancy Treated by Medical Management

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Abstract

Implantation of the fertilized ovum outside the uterine cavity is called ectopic pregnancy. It is associated with adverse outcome if not treated earlier. The fate of ectopic pregnancy depends on many factors. Important among them being site and duration of ectopic pregnancy. The main serious outcome is rupture. If the ectopic pregnancy ruptures and the patient survives this catastrophe, the ectopic mass gets organized and presents as pelvic mass with pain. Methotrexate is a folic acid analog that inhibits dihydrofolate reductase and thereby prevents synthesis of DNA. It affects actively growing cells including trophoblastic tissues, malignant cells, bone marrow, intestinal mucosa and respiratory epithelium. Medical management of ectopic pregnancies with methotrexate is safe and effective, therapy can be considered for patients with confirmed ectopic pregnancy who are hemodynamic ally stable with no evidence of rupture. It should be used with caution and severe toxicity should be kept in mind.

Key words: Ectopic Pregnancy; Methotrexate; Medical management.

Introduction

Ectopic pregnancy is serious condition in gynecologic practice, the most important risk factor for an ectopic pregnancy is a prior ectopic pregnancy with a recurrent risk of 10% to 15% after first ectopic and 30% after second ectopic pregnancy[1]. Medical therapy with methotrexate is considered first-line therapy for tubal pregnancies that, in addition to contraindications to methotrexate use, meet criteria that may include the following: Hemodynamic stability, No cardiac activity, Gestational sac less than 4 cms as determined by ultrasonography and an acceptably low beta hcg levels[2]. Methotrexate is a folic acid antagonist and the inhibitory effect on DNA synthesis of methotrexate is the rationale of its use in ectopic pregnancy in which target is trophoblasts and fetal cells. It is given via intramuscular injection but can be administered orally or by intravenous infusion[3]. There are three published regimens for administration of methotrexate: single dose regimen,a two-dose regimen and a multidose regimen[4]. Traditionally was administered using a multidose regimen but single dose protocols have improved patient compliance and have similar success rates of approximately 90%.In multidose regimen patient receive 1mg/kg of methotrexate intramuscularly or intravenously on days 1,3,5 and 7 with leukovorin 0.1mg/kg administered on days 2,4,6 and 8[5]. Leucovorin helps reduce the side effects and increase patients tolerance of the treatment[6]. Patient may not require all four doses of methotrexate and her beta hcg levels are monitored

on days 1,3,5 and 7. If the beta hcg levels drop 15% between two measurements, the regimen can be stopped and weekly beta hcg monitoring initiated[7].

Case report

Gravida women age 34 yrs admitted with symptoms of spotting per vaginum, swelling of the lips and tongue, difficulty in swallowing, multiple hyper pigmented lesions all over the body and fever. History revealed ectopic pregnancy confirmed by ultrasonography, conceived through in vitro fertilization, for which she was treated with three doses of Methotrexate (1mg/kg body weight) on alternative days.

Tablet folinic acid (leucovorin) 0.1mg/kg body weight was given alternatively. After 3-4 days following last dose of methotrexate patient developed the above mentioned complaints. On physical examination, she was found to be pale, her temperature was 100 degree Facial Puffiness was present, Multiple ulcerative lesions in the oral mucosa, multiple brownish pigmented lesions over Chest, back of neck, Lower limbs, and vulva, Multiple pustules in inguinal region and bilateral Pedal Edema was Present.

Physician & Dermatologist opinion was obtained and patient was diagnosed as Steven Johnsons Syndrome or Fixed drug eruption. Patient was managed with Steroids and Antibiotic coverage and topical for skin lesions, patient improved symptomatically and was planned for discharge. On the day of discharge patient had episodes of vomiting with blood clots, Physician opinion was obtained and was managed symptomatically with infusion Trapic, Emeset and Antacids. Counts done on the same day showed pancytopenia.

6 units of platelet transfusion was done. Patient Blood pressure dropped to 70/50mmhg physician opinion was obtained and patient was managed with IV fluids and Noradrenaline 5ug/kg/hr infusion. Emergency ultrasonography was done in ICU and internal bleed was ruled out.

Patient was referred to a higher center with inotropic support for further management. Patient was diagnosed with methotrexate allergy and was managed conservatively with antibiotic coverage and supportive care. Inotropic support weaned by 2nd day. Patient general condition improved and was discharged after one week.Beta hcg was done and found to be 334 mIU/ml (fig. 1).

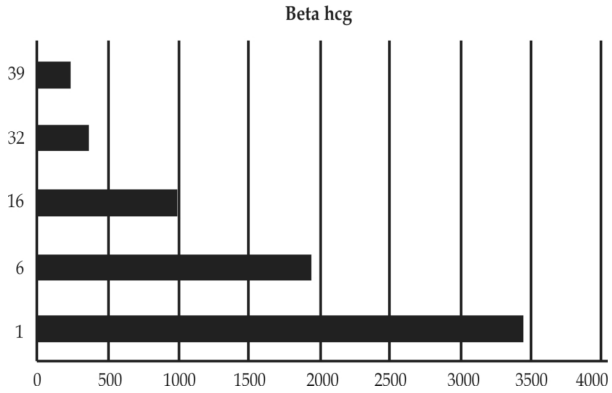

Fig. 1 : Beta hcg values measured in intervals.

Discussion

MTX is an inexpensive and slightly poisonous drug in low doses and is widely used in patients with non-ruptured ectopic pregnancy in appropriate clinical conditions. Earlier management with MTX, a practical intrauterine pregnancy must be accepted; β-hCG levels, renal and liver function tests, and a complete blood count should be checked. MTX treatment has single-dose and multiple-dose protocols. Adverse effects can be seen more frequently in multi-dose protocols. The adversative properties of MTX are triggered by irretrievable reserve of the enzyme dihydrofolate reductase in purine synthesis[8]. Reductions in blood cells and hemorrhage from the gastrointestinal tract are due to the result on quickly distributing cells of the bone marrow and intestinal tract. Unembellished opposing properties are rare in MTX behavior for ectopic pregnancy[9]. The possible stark adverse effects of MTX treatment are hepatotoxicity, pulmonary toxicity, and risk of infection, myelosuppression, and nephrotoxicity. Hepatotoxicity results from straight injury to hepatocytes or in patients with attendant viral hepatitis[10]. Myelosuppression is the major dose-limiting adverse effect of high-dose MTX, but it is infrequent in low-dose therapy. Hematologic toxicity associated with macrocytic red blood cells may be seen, but a more serious aberration is the development of pancytopenia[11].

Conclusion

Methotrexate has established to be an operative medical supervision for ectopic pregnancies in a general public where tubal safeguarding is of greatestreputation. The medical supervision by methotrexate has numerouswelfares over surgical management. It is a reduced amount of invasive, less luxurious and can be set on acasualtybase and does not need knowledge like laparoscopy.

Upcoming reproductive opportunities are healthier with methotrexate with advanced intrauterine pregnancy rates and poorer ectopic rates consequently. Though the risk of tubal rupture after medical treatment joint with a lengthy follow up for an ectopic pregnancy needs outpatient observing.

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Conflict of interest

Authors do not have any conflict of interest

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