## **Letter to the Editor**

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## Devastating impact of ruptured ectopic pregnancy

Sir.

An ectopic pregnancy is a condition in which fertilized ovum implants and develops outside normal uterine cavity. Most common site for ectopic pregnancy is fallopian tube (95%). The incidence of ectopic pregnancy ranges 1-2% in India, the most common reason being artificial reproductive technology accounting for 2-5% in patients. There are marked differences in the mortality ratios around the globe, with none mortality to 3.5%. Clinical presentation of ectopic pregnancy may mimic the intrauterine pregnancy with some of the same symptoms such as a missed menstrual period, vaginal bleeding, low back pain, mild pain in the abdomen or pelvis. Value of beta- human chorionic gonadotropin (HCG) >1500 u/l with no intrauterine pregnancy on transvaginal scan is almost confirmatory of ectopic pregnancy.

If not diagnosed or treated on time, there can be severe internal bleeding from a ruptured ectopic pregnancy requiring immediate surgery due to a life-threatening emergency.

Here, we report a case of a 30-year-old patient operated outside, who visited emergency on day 2 post laparotomy with left salpingectomy with multiorgan dysfunction. Patient had 1.5 months of amenorrhoea, and pregnancy was detected. She was not willing to continue her pregnancy hence, took medical termination of pregnancy (MTP) pills as advised by the practitioner. Patient took 2<sup>nd</sup> course of MTP pill on her own after one week as she had only vaginal spotting for a few days. After 3-4 days, the patient complains of sudden onset lower abdomen pain and vaginal bleeding. Ultrasound pelvis was done and initially suggested retained products of conception. She was kept on conservative management, but her pain did not subside. Repeat ultrasonography (USG) was done after one day, revealing a ruptured left tubal ectopic pregnancy. Exploratory laparotomy with left salpingectomy was done in a private hospital. On post-operative day 2, Patient developed shortness of breath with decreased urine output and altered sensorium and was referred to higher centre.

In the emergency department, the patient was semiconscious. She had pulse rate of 120/min, tachypnoea and hypotension (BP-90/60 mmHg) with distension and tenderness in abdomen.

Patient was intubated and started on higher antibiotics according to culture sensitivity. She underwent three sessions of sustained low efficiency dialysis (SLED) for anuria, persistent hyperkalaemia and lactic acidosis.

Multiple blood products were transfused (4 FFP and 10 cryoprecipitate). Despite treatment, the patient had continuous high-grade fever with recurrent hypoglycemic episodes and developed hepatic encephalopathy. On day 5 post laparotomy, the patient developed pulseless Ventricular tachycardia and expired despite all efforts.

In India, ectopic pregnancy is one of the rare causes of maternal death in the first trimester of pregnancy. These deaths constitute 0.5-1% of sudden natural deaths sent for medico-legal autopsy. The most common cause of death in ectopic gestations are haemorrhage, sepsis, and shock.

The risk factors include age, history of infertility, previous ectopic pregnancy, pelvic inflammatory disease, smoking and use of intrauterine devices. Diagnosis requires a high index of suspicion and therefore, is often delayed. Hence, it is important to consider ectopic pregnancy in any woman who presents with symptoms such as vaginal bleeding, pain in lower abdomen associated with period of amenorrhoea. Diagnosis should be made if on clinical examination, there is abdominal tenderness, localised mass, forniceal fullness, tenderness and cervical motion tenderness. Transvaginal ultrasound is considered the gold standard for the diagnosis of ectopic pregnancy. β-HCG combined with ultrasound further improves the diagnosis.<sup>3</sup> Presumptive diagnoses is high when serum  $\beta$ -HCG is high with no intrauterine gestation is seen with high resolution transvaginal ultrasound. The most common complication is rupture with internal bleeding leading to shock. Death from shock and rupture is seen in women who fail to seek medical help or when there is failure of diagnosis.

There were a few pitfalls in this case which led to maternal mortality. Firstly, lack of health education led to unplanned pregnancy. Secondly, prescription of MTP pills by local practitioner without confirmation of the site of pregnancy by ultrasound and thirdly, repeat intake of the pills by patient without consultation due to lack of awareness and knowledge. This led to delay in the diagnosis causing rupture of the ectopic pregnancy and its sequelae like septicaemia, multi-organ dysfunction syndrome and mortality.

Health education is important for safer sex and family planning services which can prevent unplanned pregnancy significantly. Early diagnosis of ectopic pregnancy and managing the complications of ruptured ectopic with emergency laparotomy would be life-saving. Although, there can be difficulty in diagnosing the condition in patients with such history. Patients should be advised to consult the doctor at the earliest. This can help in reducing

morbidity and mortality in ectopic pregnancy significantly.

## Manisha Jhirwal, Deepika Bohra\*, Pratibha Singh

Department of Obstetrics and Gynaecology, AIIMS, Jodhpur, Rajasthan, India

\*Correspondence to Dr. Deepika Bohra, E-mail: drdeeps8@gmail.com

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