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Original Research Article

A Clinic-Demographic Profile and Outcome Assessment of Ectopic Gestation: an Observational Study

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Abstract

Aim: The aim of the present study was to evaluate clinical presentation and outcome of ectopic gestation in a tertiary care hospital.

Methods: This study was conducted in Gauri Devi Institute of Medical Science & Hospital, Durgapur, West Bengal, India in the department of Obstetrics and Gynaecology. We included all the patients who were admitted with ectopic pregnancy for 1 year. Total of 100 patients were included with ectopic pregnancy who were admitted in our hospital.

Results: Maximum patients were in the age group of 26-30 (40%) and 31-35 (36%) years. In our study 40 patients (40%) with ectopic pregnancy were primigravida and 60 patients (60%) were multigravidas. In our study majority of women presented with pain abdomen (95%) followed by bleeding/ spotting per vaginum in 51%. Amenorrhea was seen in 22% women. On physical examination forniceal tenderness was seen in 85% of patients, 45% patients had cervical motion tenderness and 40% had both pallor and tachycardia. 25% patients presented with shock. In our study out of 100 patients, 56 (56%) had emergency laparotomy and salphingectomy done, 16 (16%) had medical management with methotrexate, 14 (14%) had laparoscopy and 10 (14%) had expectant management.

Conclusion: Ectopic pregnancy is still a major challenge in obstetrical practice because of its bizarre clinical presentation. It can be diagnosed early by keeping a high index of suspicion and personnel training. Despite exhaustive efforts to prevent ectopic pregnancies the numbers are constantly rising due to increased reporting of the cases and improved diagnostic modalities. Delay in referral causes significant morbidity and diminishes the chances of preserving future fertility.

Keywords: Ectopic pregnancy, tubal abortion, scar ectopic pregnancy, total salphingectomy, methotrexate

Introduction

Ectopic pregnancy (EP) is a complication that occurs in the first trimester of pregnancy when an embryo implants outside of the uterus.[1] In India, the incidence has been reported in the range of 0.91-2.3%. [1,2] The most frequent risk factors of EP include a history of abortions and pelvic inflammatory disease (PID). [3,4] Because the classic symptoms triad of amenorrhea, abdominal pain, and vaginal bleeding is present only in 30% to 40% of patients with EP, the diagnosis requires a high index of clinical suspicion. [5] The EP spectrum includes asymptomatic patients as well as ruptured ones that present in shock. Increased morbidity and occasionally even fatality are consequences of delayed diagnosis. [6] It could even have an impact on her future fertility if not treated instantly and effectively. [7]

The etiology of ectopic pregnancy is not well clear. Several factors increase the risk of ectopic pregnancy. These risk factors share a common mechanism of action—namely, interference with fallopian tube function. Normally, an egg is fertilized in the fallopian tube and then travels down the tube to the implantation site. Any mechanism that interferes with the normal function of the fallopian tube during this process increases the risk of ectopic pregnancy. The mechanism can be anatomic (e.g., scarring that blocks transport of the egg) or functional (e.g., impaired tubal mobility). Pelvic inflammatory disease, puerperal sepsis, postabortion sepsis, appendicitis, and the use of intrauterine contraceptive devices have been identified as sources of pelvic infection and major risk factors. [8-10] Other etiological risk factors are

tubal/pelvic surgeries, endometriosis, exposure to diethylstilbestrol in utero, chromosomally abnormal embryo, use of progesterone-only pills, cigarette smoking, conception following induction of ovulation and in vitro fertilization and embryo transfer (assisted reproductive technology), history of previous abortion, previous ectopic pregnancy, history of infertility, race, and age above 35 years. [11,12]

With tubal pregnancy, because the fallopian tube lacks a submucosal layer, the fertilised ovum promptly burrows through the epithelium. The zygote comes to lie near or within the muscularis, which is invaded by rapidly proliferating trophoblast. Potential outcomes from this include tubal rupture, tubal abortion, or pregnancy failure with resolution. The classic triad is amenorrhea followed by pain and vaginal bleeding. [13]

The aim of the present study was to evaluate clinical presentation and outcome of ectopic gestation in a tertiary care hospital.

Materials and Methods

This study was conducted in Gauri Devi Institute of Medical Science & Hospital, Durgapur, West Bengal, India in the department of Obstetrics and Gynaecology. We included all the patients who were admitted with ectopic pregnancy for 1 year. Total of 100 patients were included with ectopic pregnancy who were admitted in our hospital. The case records were retrieved from the medical records department . Patient characters like age, parity, gestational age, risk factors, preoperative diagnosis, clinical presentation, USG findings and hemoglobin were noted. The mode of diagnosis, management modality, complications, blood loss and the need for blood transfusions were also recorded. The primary outcome of the study was the incidence of ectopic pregnancy in our hospital, risk factors and the management modality with associated complications. We used kobo toolbox software for data entry and analysis.

Results

Table 1: Baseline characteristics

Age Group	
< 20	0
21-25	14
26-30	40
31-35	36
> 35	10
Parity	
Primigravida	40
Multigravida	60
Presenting complaints	
Abdominal pain	95
Bleeding PV/Spotting PV	51
Amenorrhea	22

Maximum patients were in the age group of 26-30 (40%) and 31-35 (36%) years. In our study 40 patients (40%) with ectopic pregnancy were primigravida and 60 patients (60%) were multigravidas. In our study majority of women presented with pain abdomen (95%) followed by bleeding/ spotting per vaginum in 51%. Amenorrhea was seen in 22% women.

Table 2: Distribution according to clinical findings

Value	Frequency	Percentage
Forniceal tenderness	85	85
CMT	45	45
Pailor	49	49
Tachycardia	39	39
Guarding/Rigidity	28	28
Hypotension	25	25
Abdominal distension	21	21
Adnexal mass	16	16

On physical examination forniceal tenderness was seen in 85% of patients, 45% patients had cervical motion tenderness and 40% had both pallor and tachycardia. 25% patients presented with shock.

Table 3: Management

Management	N	%
Laparotomy	56	56
Medical management	16	16
Expectant management	14	14
Laparoscopy	14	14

In our study out of 100 patients, 56 (56%) had emergency laparotomy and salphingectomy done, 16 (16%) had medical management with methotrexate, 14 (14%) had laparoscopy and 10 (14%) had expectant management.

Discussion

Ectopic pregnancy (EP) is a condition presenting as a major health problem for women of childbearing age. The incidence of EP varies with the population, but it has been accounted for 1-2% of all reported pregnancies. Accordingly, it is speculated that the main risk factors for ectopic pregnancy are conditions or procedures, which can result in tubal damage. [14] The risk is increased by several factors: previous ectopic pregnancy, tubal damage from infection (pelvic inflammatory disease) or surgery, a history of infertility, therapy for in vitrofertilization, increased age, and smoking. The risk of an ectopic pregnancy is increased 7-fold after an episode of acutesalpingitis. This is particularly true if the causal agent is Chlamydia trachomatis. [15]

An ectopic pregnancy occurs when conceptus implants outside the endometrial cavity. Incidence of ectopic pregnancy is around 2%. [16] The risk factors for ectopic pregnancy includes infertility, ART, tubal surgeries, genital tuberculosis and PID. It is one of the common causes of morbidity and mortality in women with early pregnancy. [17] Maximum patients was in the age group of 26-30 (40%) and 31-35 (36%) years. A study by Soren et al [18] showed that the highest incidence of ectopic pregnancies was noted in 21-30 year age group (56%). In our study 40 patients (40%) with ectopic pregnancy were primigravida and 60 patients (60%) were multigravidas. LSCS was the most common risk factor associated with ectopic pregnancy found in as study by Barik et al [19], this was corroborated in our study in which a 40% incidence was found. In our study majority of women presented with pain abdomen (95%) followed by bleeding/ spotting per vaginum in 51%. Amenorrhea was seen in 22% women. The classical triad of amenorrhea+ abdominal pain+ spotting per vaginum was noted. Vomiting and dizziness was classically noted in patients of moderate to gross hemoperitoneum. Fever was noted in only case of ectopic pregnancy which was later diagnosed to be a case of caesarean scar pregnancy presenting with sepsis. These symptoms corresponded with other studies. [20-22]

On physical examination forniceal tenderness was seen in 85% of patients, 45% patients had cervical motion tenderness and 40% had both pallor and tachycardia. 25% patients presented with shock. In our study out of 100 patients, 56 (56%) had emergency laparotomy and salphingectomy done, 16 (16%) had medical management with methotrexate, 14 (14%) had laparoscopy and 10 (14%) had expectant management. Management of ectopic pregnancy was mainly based on hemodynamic stability. Patients who were hemodynamically unstable were taken for laparotomy and was followed by salpingectomy.

Conclusion

Ectopic pregnancy is still a major challenge in obstetrical practice because of its bizarre clinical presentation. It can be diagnosed early by keeping a high index of suspicion and personnel training. Despite exhaustive efforts to prevent ectopic pregnancies the numbers are constantly rising due to increased reporting of the cases and improved diagnostic modalities. Delay in referral causes significant morbidity and diminishes the chances of preserving future fertility.

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