

# A Retrospective Study on Risk Factors, Clinical Presentation And Management Of Ectopic Pregnancy In Tertiary Care Centre, Rajasthan

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## Abstract

**Background:** Ectopic pregnancy is not an uncommon condition and is potentially a life-threatening emergency. There is a rising trend in incidence which necessitates the gynecologists to have comprehensive knowledge about the disease.

**Aim of the study:** To determine the incidence, risk factors, clinical features and management.

**Materials and Methods:** This study is conducted in the Department of Obstetrics and Gynecology of Umaid Hospital, Jodhpur. It is a retrospective descriptive study on patients who presented to our department with clinical features of ectopic pregnancy and later confirmed with intraoperative findings or ultrasound, in the 6 month period from January 2024 to June 2024.

**Results:** A total of 84 patients were diagnosed to have ectopic pregnancy with an incidence of 1.8 percent. Previous ectopic pregnancy found in 3.57% of pregnancy. Tubal surgeries were carried out in 4.7% . H/O previous abortion/MTP found in 26.19% of cases . Previous abdominopelvic surgeries including caesarean sections were responsible for 22.61% of ectopic pregnancy. PID was found in 16.6% of cases History of tuberculosis was found in 3.57% of cases. In this study, 13.09% cases were using an intrauterine device (IUD) as a method of contraception. Combining OCPs and IUD, 21.39% cases had ectopic pregnancy Surgical treatment with salpingectomy was done in majority of the cases and medical management in 4 patients. Blood transfusions were given in 83.3% of cases. The postoperative period is uneventful in all the cases.

**Conclusion:** Ectopic pregnancy is the leading cause of maternal mortality in first trimester. In spite of advanced diagnostic techniques, it poses great diagnostic difficulties due to varied signs and symptoms. Previous tubal surgery pelvic inflammatory disease and infertility are the risk factors of tubal pregnancy.

**Key words-** Ectopic, PID, Salpingectomy, Maternal mortality and morbidity

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## I. INTRODUCTION

Ectopic pregnancy is defined as a pregnancy that occurs outside of the uterine cavity. The most common site of ectopic pregnancy is the fallopian tube.<sup>1</sup>

Ectopic pregnancies are one of the leading cause for maternal mortality and maternal morbidity in first trimester with an incidence of 5% -10% of pregnancy related deaths.<sup>2</sup>

The estimated rate of ectopic pregnancy in the general population is 1 to 2% and 2 to 5% among patients who utilized assisted reproductive technology . Ectopic pregnancies with implantation occurring outside of the fallopian tube account for less than 10% of all ectopic pregnancies. Cesarean scar ectopic pregnancies occur in 4% of all ectopic pregnancies.<sup>3</sup>

Risk factors associated with ectopic pregnancies include advanced maternal age, smoking, history of ectopic pregnancy, tubal damage or tubal surgery, prior pelvic infections, DES exposure, IUD use, and assisted reproductive technologies. The risk of developing a heterotopic pregnancy has been estimated as high as 1:100 in women seeking in vitro fertilization.<sup>3</sup>

Patients with an ectopic pregnancy commonly present with pain and vaginal bleeding between 6 and 10 weeks' gestation.<sup>4</sup> Cervical motion tenderness has been reported in up to 67% of cases, and a palpable adnexal mass in about 50%.<sup>5,6</sup>

Ruptured EP is a clinical diagnosis with clinical features such as sudden and persistent abdominal pain that may be accompanied by shoulder pain, peritonitis, or shock.<sup>7</sup> Patient symptoms combined with urine pregnancy test, serial ultrasonography and trends in beta human chorionic gonadotropin levels are used to make the diagnosis.<sup>8</sup>

Treatment of diagnosed ectopic pregnancy includes medical management with intramuscular methotrexate, surgical management via salpingostomy or salpingectomy, and, in rare cases, expectant management.<sup>8</sup>

**Aim and Objectives**

- To know the age group, parity, and risk factors with respect to the ectopic pregnancy
- To know the clinical presentation and intervention required in ectopic pregnancy
- To know the outcome of the ectopic pregnancy

**II. Material and Methodology**

Type of study – Retrospective study  
 (conducted in department of obstetrics and gynecology, Umaid hospital, Dr SNMC Jodhpur)  
 Data collection done through case notes , operation theatre and labor ward registers.

Duration of study – six months (1 January 2024 to 30 June 2024)

Total ectopic pregnancies – 84 Total deliveries – 4600

Inclusion criteria – Patients with confirmed diagnosis of ectopic pregnancy.

1 Demographic parameters

.....AGE

AGE	NO. OF CASES	PERCENTAGE
15-20	01	1.19%
21-25	18	21.4%
26-30	27	32.14%
31-35	16	19.04%
36-40	14	16.6%
>40	08	9.52%

.....PARITY

2 RISK FACTORS

PRIMIPARITY	22	26.19%
MULTIPARITY	62	73.80%

3. Signs and symptoms

Sign/symptom	No. of cases	Percentage
Pain	74	88.09%
Bleeding per vagina	52	61.9%
H/O amenorrhea	68	80.09%
Classic triad	54	64.28%
Abdominal tenderness	68	80.9%
Abdominal distension	44	52.3%
Abdominal mass	30	35.7%
Cervical tenderness	60	71.4%
Forniceal tenderness	54	64.28%
Mass felt through fornices	58	69.04%

4 Site of ectopic pregnancy

site	No of cases	percentage
Ampulla	48	57.14%
Fimbria	14	16.6%
Isthmus	09	10.7%
cornua	06	7.14%
Tubal abortion	05	5.95%
Ovary	01	1.19%
Heterotrophic	01	1.19%
Right side	44	52.38%
Left side	40	47.6%

	NO OF CASES	PERCENTAGE
Tubal surgery/tubal ligation	04	4.7%
Previous abortion/MTP	22	26.19%
Previous ectopic pregnancy	03	3.57%
PID	14	16.6%
H/O TB	03	3.57%
OCP	07	8.3%
IUCD	11	13.09%
OVULATION INDUCTION	01	1.19%
Previous abdo-pelvic surgery/LSCS	19	22.61%

5 Type of Ectopic Pregnancy (Usg & Intra-Operative Findings)

	No of cases	Percentage
Post operative hospital stay >10 days	38	45.2%
Post operative wound complications	20	23.8%
Blood transfusion >1 unit	70	83.3%
shock	28	33.3%
Icu admission	18	21.4%
Mortality	00	00

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#### 6 Complications

	Number	Percentage
Ruptured	48	57.14%
Unruptured	10	11.9%
Chronic	20	23.8%
Tubal abortion	06	7.1%
Hemoperitoneum <500ml	30	35.7%
Hemoperitoneum >500ml	44	52.3%
No hemoperitoneum	10	11.9%

#### 7 Management

	No of cases	Percentage
Unilateral salpingectomy	72	85.7%
Salpingo- oophorectomy	08	9.5%
Medical management	04	4.7%

### III. DISCUSSION

The incidence of ectopic pregnancy in our study came out to be 1.8 % which is comparable to worldwide reported incidence that varies between 1%-2%.

Most frequent gestational age was around 6-8 weeks and right sided 52.38% was found more common than left sided 47.6% . 32.14% of the cases were seen between 26 to 30 years of age group and 73.8% of the patients were multiparous.

Previous ectopic pregnancy and tubal surgery are strongest risk factors associated with the occurrence of ectopic pregnancy. Previous ectopic pregnancy found in 3.57% which is consistent with the hypothesis that women with previous ectopic pregnancy has greater proclivity toward a subsequent ectopic pregnancy. Tubal surgeries were carried out in 4.7% . H/O previous abortion/MTP found in 26.19% cases . PID was found in 16.6% cases suggesting strong evidence that PID is responsible for the ectopic pregnancy. History of tuberculosis found in 3.57% cases. In present study, 13.09% cases were using an intrauterine device (IUD) as a method of contraception. Combining OCPs and IUD, 21.39% cases had ectopic pregnancy .

Previous abdominopelvic surgeries including caesarean sections were responsible for 22.61% of ectopic pregnancy .

MC presenting symptom was pain in abdomen which was seen in 88.09% cases followed by history of amenorrhea (80.09%) . Bleeding per vagina found in 61.9% . Classical triad found in 64.28% cases . 30.3% cases presented to the hospital in shock. On clinical examination, it is found that abdominal tenderness present in 80.9% cases and 71.4% were seen with cervical tenderness. On abdominal palpation abdominal mass was felt in 35.7% cases. Adnexal mass felt in 69.04 % cases.

Tubal pregnancy found in 84.4% cases . Most of the patients had ampullary ectopic (57.14%) pregnancy . Fimbria (16.6%) found the second most common site of tubal pregnancy . One case (1.19%) was with ovarian

ectopic pregnancy and one case was of heterotrophic pregnancy (1.19%) . Incidence of corneal/interstitial pregnancy was 7.14%. 7.1%% cases had tubal abortion . Ten cases (11.9%) cases were of unruptured ectopic pregnancy. Salpingectomy required in 85.7% cases . . Salphingo- oophorectomy required in 9.5% cases . Medical line of the treatment with injection methotrexate was given in 04(4.7%) patients .

83.3% patients required intra or post-operative blood transfusion. Post-operative wound infection found in 23.8% cases . 45.2% patients were discharged after a  $\geq 10$  days stay. No mortality was reported in our study.

#### **IV. CONCLUSION**

Ectopic pregnancy is still one of the major contributor of early pregnancy emergency admission . It is one of the most important cause of maternal mortality and morbidity in the first trimester. Majority cases present with pain abdomen and amenorrhea. Clinical signs of shock are present in most of cases too. High degree of clinical suspicion and early intervention are main stay for successful outcome.

Proper evaluation of pregnancy with associated risk factors and early diagnosis will help preserving tube and in turn her fertility and thus help in decreasing morbidity and mortality.

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