

# A Clinical Study on Ectopic Pregnancy at Rural Tertiary Care Center

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**Abstract:** Aim: To study the incidence of ectopic-pregnancy and the high risk factors as well as to understand the various clinical presentations, treatment and assessment of risk of maternal morbidity, mortality in a tertiary care hospital. Methods: This study is a hospital based retrospective observational study on patients who presented to our department with clinical features of ectopic-pregnancy and later confirmed with ultrasound or intraoperative findings from January 2021 to December 2022. Out of 2102 deliveries during this period, 26 cases were diagnosed as ectopic pregnancy. All the women were analysed with respect to the history, clinical presentation, investigations and treatment, complications and the requirement for blood transfusion. Conclusion: Ectopic pregnancy is major cause of maternal morbidity and mortality in first trimester. There is an increase in the incidence of ectopic-pregnancy but a decrease in maternal morbidity and mortality during the past two decades due to advanced diagnostic techniques, human-chorionic-gonadotropin assay for the early detection and treatment. All Gynecologists should have basic knowledge about the clinical presentation, risk factors, prompt and efficient referral system, efficient transportation, which will ensure early presentation in hospitals and immediate management of cases. We had to manage most of the women as surgical emergencies, as they were brought late, with ruptured ectopic pregnancy. High suspicion index and early diagnosis is essential for successful management.

**Keywords:** Ectopic, Pregnancy, Maternal, Mortality, Morbidity

## 1. Introduction

Ectopic pregnancy is pregnancy that develops following implantation anywhere other than the endometrial cavity of uterus, presenting with classical triad - amenorrhea, abdominal-pain and vaginal-bleeding and positive pregnancy test. It is one of the leading causes of maternal morbidity and mortality in first trimester, but also one of the conditions threatening the fertility of the patient. The most usual type is the tubal ectopic pregnancy (98.3%) especially ampullary part. It is dangerous to the life as tubal pregnancies rupture leads to massive bleeding in the abdomen. The incidence of Ectopic-pregnancy is around 1-2% in many hospital-based studies and also raising during the last few decades.<sup>(1-2)</sup> The causes of this increase are due to prevalence of sexually transmitted disease, use of intra-uterine contraceptive device, tubal sterilization, tubal reconstructive surgery, assisted reproductive techniques. If suspected clinically, early ultrasonography<sup>3</sup> is advised, which allows early detection, can be managed medically or by fertility sparing surgical procedures. The clinical features are variable from asymptomatic cases to acute abdomen, and hemodynamic shock<sup>4</sup>. The current trend is a conservative management like chemotherapeutic agents or conservative surgical approaches, the goal is to save the tube than radical surgery<sup>5</sup>.

### Aims and Objectives

- 1) To assess all cases of Ectopic-pregnancy and determine the incidence.
- 2) To study high-risk factors and become familiar with the various clinical presentations, diagnostic methods, outcomes, and complications.

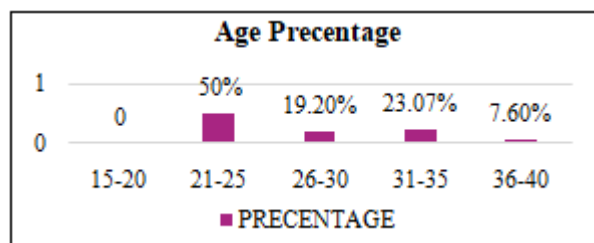
## 2. Materials and Methods

The retrospective study was undertaken at GEMS hospital between January-2021 to December 2022 after obtaining clearance from the Hospital Ethical Committee. Each and every reported ectopic pregnancy were enrolled in the study. Detailed history and clinical evaluation were noted.

## 3. Results and Observations

**Table 1: Incidence**

	Number	Percentage (%)
Total Pregnancies	2102	100
Ectopic pregnancies	26	1.23



**Figure 1: Age**

**Table 2: Parity**

Parity	Frequency/ Number	Percentage (%)
1	5	19.2
2	8	30.7
3	9	34.6
>4	4	15.3

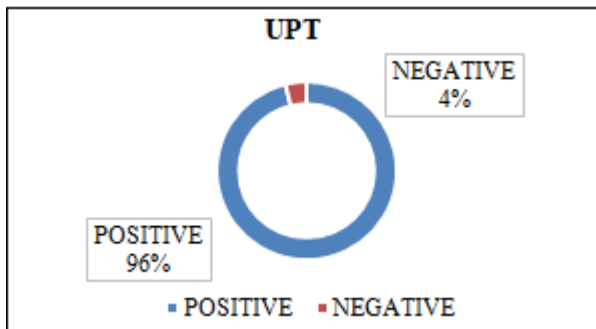


Figure 2: Urine - Pregnancy Test

Table 3: Risk Factors

Risk Factors	Percentage (%)
History of Tubal Surgery	42
IUCD	0
History of PID	8
Previous Abortion	23
Previous Ectopic	4
Infertility	11
None	12

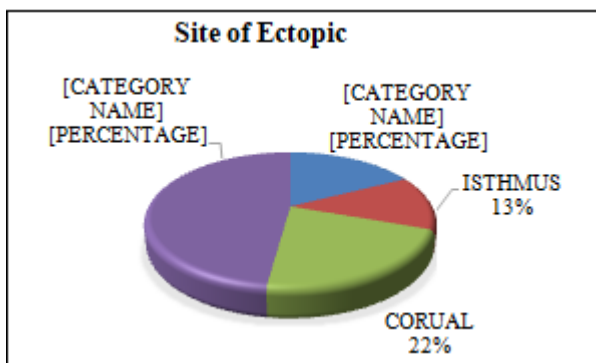


Figure 3: Site of Ectopic

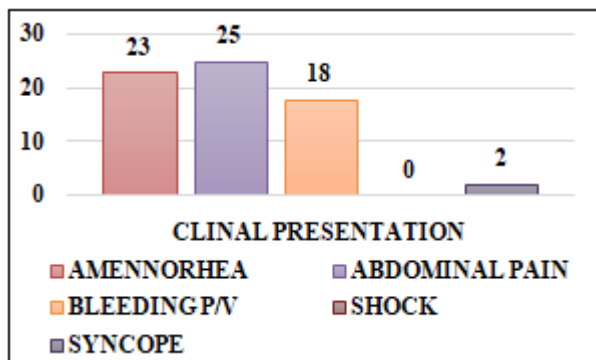


Table 4: Clinical Presentation

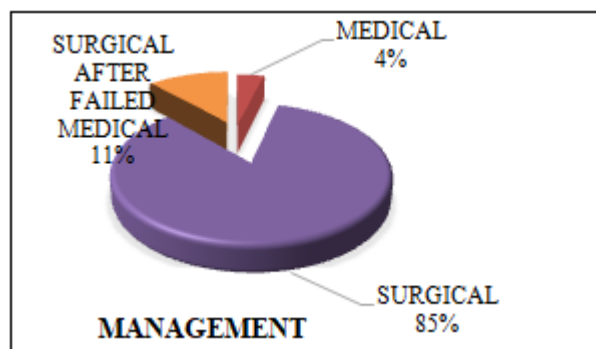


Figure 5: Management

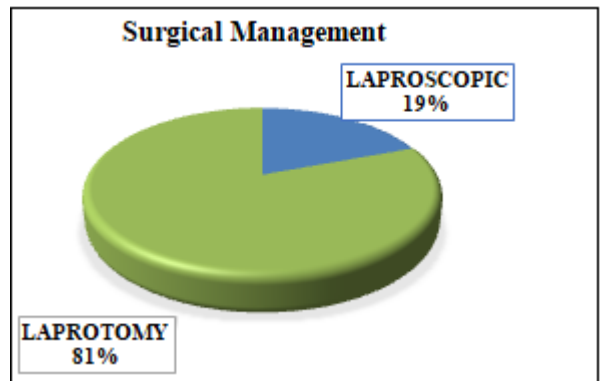


Figure 6: Surgical Management

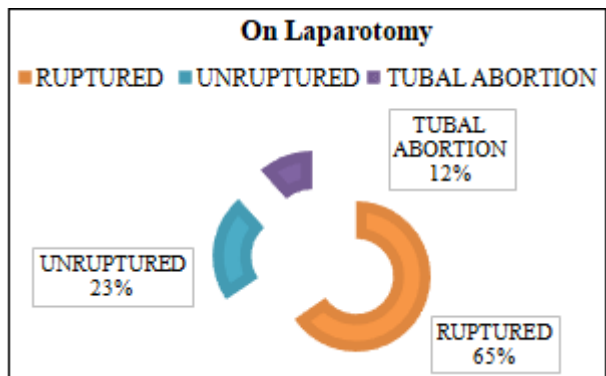


Figure 7: Condition on Laparotomy

Table 5: Surgical Procedure

Surgical Procedure done	Number
B/L Salpingectomy	10
U/L Salpingectomy	14
Salpingectomy + U/L oophorectomy	3
B/L Salpingoophorectomy	0

#### 4. Discussion

In this study majority of the women (69.2%) were in the group of age 20-30 years. Our outcome are in concordant with Panchal D et al (71.66%) and A Gaddagi et al<sup>6</sup> (70.2%). In India, majority of women marry and have children at a young age<sup>6</sup>. This is the same as the reproductive and sexual activity peak age. This corresponds to the age of peak sexual activity and reproduction. Urinary Beta HCG was positive in 96% of the cases while 4% were negative. This study results are similar to the study done by WM Fgeeh et al<sup>7</sup> (96%). This shows that negative pregnancy test cannot rule out ectopic pregnancy. We found that majority of the women with ectopic-pregnancy were multigravida (80%) while (20%) were primigravida. Multiparous woman was found to be more prone to ectopic pregnancy in Gaddagi et al i.e., 62.2%; Shetty et al<sup>8</sup> i.e., around 83.9%. Multiple pregnancies and infections that cause tubal damage are most likely to blame for the increased occurrence in multi-gravid women.<sup>9</sup> Classic triad of symptoms was observed in 69.2% of patients. Other researches has revealed it to be noted in 28%-95% of patients [7,8]. In this study we found the highest percentage of risk factor for h/o tubal surgeries (42%), previous h/o abortion (23%). In this study the ectopic site was most common in ampulla (48%), cornual (22%), at infundibulum 17%, isthmus 13%. Out of 6 unruptured ectopic pregnancies, 3 have been medically managed 1 was successfully

managed, 2 were medical management failure and underwent laparotomy and other cases didn't fit into the criteria for medical management. 65% presented with ruptured ectopic gestation. The higher rate can be explained by delayed presentation to our hospital as it is a referral center. The majority of patients were surgically managed (81%), The most often used treatment was Laparotomy-salpingectomy. The decision to perform a salpingostomy or salpingectomy for the treatment of ectopic pregnancy should be guided by the patient's clinical status, her wish for future fertility, and the extent of fallopian tube damage. Laparoscopic salpingectomy (19%) was done in unruptured cases and few selected ruptured ectopic patients.

## 5. Conclusions

It is advised all the clinically suspicious patients to undergo early ultrasound & early detection hence can be managed medically or fertility sparing surgical procedures. In unruptured ectopic pregnancy, if clinically stable, advised laparoscopic surgery or intramuscular methotrexate which are safe and effective. But depends on patient-future fertility choice. Surgical management is advised if patient is hemodynamically instable or impending rupture or intra peritoneal bleed.

## References:

- [1] TeLinde. Operative Gynecology. 10th Ed. Lippincott - Raven, Philadelphia;1997:798.
- [2] Singh S, Pukale RS, Mahendra G, Vijayalakshmi S (2014) A clinical study of ectopic-pregnancy in a rural setup: A two-year survey. *Natl J Med Res* 4: 37-39.
- [3] Ory SJ, Villaneva AL, Sand PK. Conservative treatment of ectopic-pregnancy with methotrexate. *AM J, obstet, Gynecol.* 1986;154:1299-306.
- [4] Berek JS, Berek DL. Berek and Novak's Gynecology. 15th edition. USA: Lippincott, Williams & Wilkins, A Wolters Kluwer Business; 2012, p. 627.
- [5] Sultana CJ, Easley K, Collins RL. Outcome of laparoscopic vs traditional surgeries for ectopic-pregnancies. *FertilSteril* 1992; 57:285.
- [6] Gaddagi RA, Chandrashekar AP. A Clinical Study of Ectopic-pregnancy, *Journal of clinical and Diagnostis Research.* 2012;6:867-9
- [7] Fageeh WM. Diagnosis and Management of Ectopic pregnancy in King Abdul Aziz University Hospital, a Four-year Experience, *Medical science.* 2008;15(2).
- [8] lap - Saranovic M, Vasiljevic M, Prorocic M, Macut ND, Filipovic T (2014).
- [9] Sudha VS, Delphine RT. A retrospective study on ectopic-pregnancy: a two-year study. *Int J Reprod Contracept Obstet Gynecol* 2016; 5:4365-8