



## A RETROSPECTIVE STUDY ON TRENDS OF ECTOPIC PREGNANCY WITH HISTOPATHOLOGICAL EXAMINATION.

**Dr. P. Venkata Ramana Babu\***

Professor, Department of Pathology, Kurnool Medical College, Andra Pradesh.  
\*Corresponding Author

**Dr. V. Swaathi**

Post Graduate student, Kurnool Medical College, Andra Pradesh.

**ABSTRACT** Ectopic Pregnancy refers to implantation of fetus in a site other than normal intrauterine cavity, this includes sites like fallopian tube, ovaries, abdominal cavity. Ectopic pregnancy accounts for 2% of confirmed pregnancy. This is one of the leading causes of mortality in the first trimester of pregnancy. Timely diagnosis is extremely crucial as delay in diagnosis can lead to mortality. Histopathological examination is required for confirmation of ectopic pregnancy by identifying trophoblastic tissue in ectopic location, since there are other conditions which can have similar presentation clinically. **Materials And Methods:** This is a retrospective study conducted on 2 years data collected from January 2021 to December 2022. Clinical details like age of the patient, parity, gestational age were obtained from patients from the available data and its entry is made in MS Excel sheet. **Results:** Total of 90 cases (100%) were analyzed in this study and most women with ectopic pregnancy were between the age group of 20 - 25 years 48 cases (53.3%) and presented in 2nd pregnancy 39 cases (43.3%) and most common in 6th week of gestation 29 cases (31.1%) with fallopian tube as the most common site 89 cases (98.8%) and most common on right side of fallopian tube 64 cases (71.1%) with ruptured ectopic pregnancy 57 cases (63.3%) with a total of 8 cases (8.8%) showed no evidence of trophoblastic tissue. **Conclusion:** Ectopic pregnancy is most common in women between 20 to 25 years, in 2nd pregnancy and in 6th week of gestation with most common site of right sided fallopian tube. Ectopic pregnancy was confirmed on histopathological examination on 82 cases. A total of 8 cases showed no evidence of trophoblastic tissue were reported as haematosalpinx and chronic salpingitis which are clinically mimicking ectopic pregnancy.

**KEYWORDS :** Ectopic pregnancy, fallopian tube, chronic salpingitis, haematosalpinx.

### INTRODUCTION:

Ectopic Pregnancy refers to implantation of fetus in a site other than normal intrauterine cavity like fallopian tube, ovaries, abdominal cavity. Ectopic pregnancy accounts for 2% of confirmed pregnancy<sup>1</sup>. It is one of the leading causes of mortality in the first trimester of pregnancy<sup>2</sup>.

The incidence of ectopic pregnancy is increasing worldwide, one of the reasons being early diagnosis and intervention due to advent of newer diagnostic modalities, which has reduced the mortality rate from as high as 7.1-3.5% to near zero as per the recent studies from various parts of India<sup>3</sup>. Hence, worldwide, the focus has shifted from maternal mortality due to ectopic pregnancy to preserving fertility by diagnosing the condition at an early salvageable stage<sup>4</sup>.

Hence, in the study we have analyzed 90 cases which are clinically diagnosed as ectopic pregnancy in our government general hospital, Kurnool during a period of two years from January 2021 to December 2022 to identify the varied presentation based on histopathological examination, age group affected, most common site, parity and gestational age.

### AIM:

- To analyse the histopathological features of clinically diagnosed cases of ectopic pregnancy.
- To estimate the percentage of cases that are positive and negative on histopathological examination based on trophoblastic tissue.
- To know the most common age distribution, parity, side of fallopian tube and gestational age of ectopic pregnancy.

### MATERIALS AND METHODS:

It is a retrospective observational study done in department of Pathology, Kurnool Medical College, Kurnool. Based on the data collected from the registers from the period of January 2021 to December 2022.

### Inclusion Criteria:

All the cases presented as ectopic pregnancy clinically with the submitted data of age, parity, gestational age, site, side to the department of Pathology, Kurnool Medical College, Kurnool.

### Exclusion Criteria :

- Specimens of uterine gestation.
- Cases that doesn't contain adequate data for the Study.

### RESULTS:

There were a total of 90 samples which were submitted with clinical

details of ectopic pregnancy, for a study period of 2 years. The age range between 18 to 40 years were seen of which most of the women were between 20 to 25 years. Based on the details of parity, gestational age, site and side from 90 patients, of which 39 patients presented in 2nd pregnancy (43.3%) and 6th week of gestation presentation were seen in 28 patients (31.1%) with most of the cases had tubal (98.8%) ruptured ectopic pregnancy (63.3%) over the right side of fallopian tube was observed on 64 patients (71.1%)

On histopathological examination of 90 cases, trophoblastic tissue is identified in 82 cases (91.1%) and a total of 8 cases (8.8%) doesn't have trophoblastic tissue in it. Of these 8 cases, which are clinically presented as ectopic pregnancy, microscopically showed haemorrhage which is suggestive of haematosalpinx in 5 cases and 3 cases shows chronic salpingitis changes.

**Sample Size :** 90 cases.

### Statistical Analysis:

#### Table no.1 for Age distribution and Trophoblastic tissue presence.

AGE DISTRIBUTION	CASES	%
Less than 20 years	4 cases	4.4 %
20 to 25 years	48 cases	53.3 %
25 to 30 years	21 cases	23.3 %
More than 30 years	17 cases	18.8 %
TROPHOBLASTIC TISSUE	CASES	%
Seen	82 cases	91.1 %
Not seen	8 cases	8.8 %

#### Table no.2 for gestational age and Common site of ectopic pregnancy.

GESTATIONAL AGE	CASES	%
5 weeks	16 cases	17.7 %
6 weeks	28 cases	31.1 %
7 weeks	13 cases	14.4 %
8 weeks	11 cases	12.2 %
More than 8 weeks	22 cases	24.4 %
COMMON SITE	CASES	%
Tube	89 cases	98.8 %
Ovary	1 case	1.1 %

#### Table no.3 Based on Parity, side of fallopian tube involved and number of ruptured ectopic pregnancies.

PARITY	CASES	%
Primi	11 cases	12.2 %
Para one	22 cases	24.4 %

Para two	39 cases	43.3 %
Para three and more	18 cases	20 %
SIDE OF FALLOPIAN TUBE INVOLVED	CASES	%
Right	64 cases	71.1 %
Left	25 cases	27.7 %
TUBAL ECTOPIC PREGNANCY	CASES	%
Ruptured	57 cases	63.3 %
Unruptured	32 cases	35.5 %

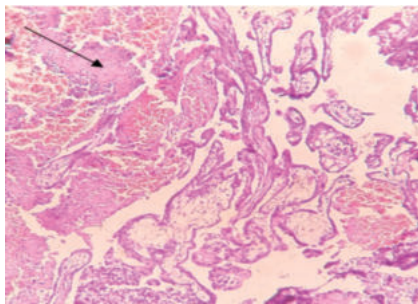


**A. Gross Image Of Ruptured Fallopian Tube With Dilated Lumen With Blood Clot And Fetal Parts**

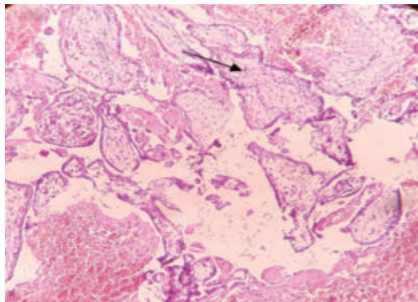
**DISCUSSION:**

With early diagnosis and prompt management, the mortality rate has reduced significantly to near zero as can be seen from data published from latest studies from various parts of India<sup>2</sup>. Not surprisingly, it is still one of the leading causes of maternal death in early pregnancy accounting for 3.5-7.1% of maternal mortality in India<sup>6</sup>.

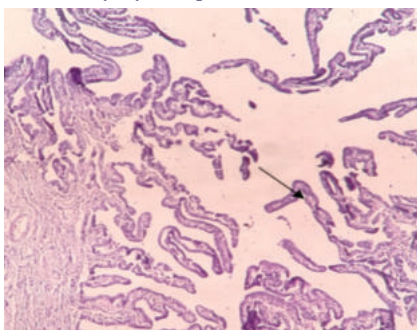
The classic triad of ectopic pregnancy presentation includes amenorrhea, abdominal pain and vaginal bleeding<sup>4</sup>.



**A. Decidualized Stroma**



**B. CHORIONIC VILLI - With loose myxoid stroma lined by cytotrophoblast and syncytiotrophoblast.**



**C. Fallopian Tube Histology.**

**B. Histopathological Images Of Ruptured Ectopic Pregnancy**

Based on the study of Neelima govada et al<sup>2</sup> the most common age group presented as ectopic pregnancy is 20 to 30 years, in present study, the most common age group is 20 to 25 years, however there is wide variation in the presentation of parity based on different previous studies, multiparous women appears to be having more risk than the primi in all the studies. The most common parity in present study is found to be second parity, similar observations were seen in Shrivastava M et al<sup>10</sup>, with the most common gestational age of 6 weeks, the same observations is seen in Neelima govada et al study.

Among many sites, fallopian tube is one of the most common site of ectopic pregnancy, with right fallopian tube involvement is greater than left fallopian tube in present study, similar finding is observed in Barik S et al<sup>4</sup>.

On histopathological examination of present study population, out of 90 cases, presence of chorionic villi and decidualized stroma is seen in 82 cases (91.1%) and absence of trophoblastic tissue in 8 cases (8.8%). The fallopian tube was ruptured in 63.3% of cases, these observations were similar to the findings of Barik S et al., and Murugesan A et al<sup>5</sup>. There could be several reasons for absence of trophoblastic tissue microscopically, ranging from sampling error, misdiagnosis and tubal abortion<sup>7</sup>.

In this study out of 8 cases that doesn't have trophoblastic tissue, 5 cases are haematosalpinx and 3 cases are chronic salpingitis, which had corpus luteum and follicular cyst that might have mislead the diagnosis on ultrasonography.

**CONCLUSION :**

Based on the data available from the registers, it is observed that ectopic pregnancy is most common in women between 20 to 25 years, in 2nd pregnancy and in 6th week of gestation with most common site were right sided fallopian tube. Ectopic pregnancy was confirmed on histopathological examination on 82 cases with haematosalpinx and chronic salpingitis as the close mimics for ectopic pregnancy.

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