

## STUDY OF INCIDENCE, CLINICAL PRESENTATION, RISK FACTORS AND MATERNAL OUTCOME ASSOCIATED WITH ECTOPIC PREGNANCY IN TERTIARY CARE HOSPITAL

DR. I PADMASHREE (ASSOCIATE PROFESSOR)

DR. D SREELEKHA (ASSISTANT PROFESSOR)

DR. NUNE SRI NAVYA (POSTGRADUATE)

Government medical college, Anantapuramu, Andhra pradesh

Email id of corresponding author- dr.darsisreelekha@gmail.com

### ABSTRACT:

**Introduction:** Ectopic pregnancy is one of the commonest acute abdominal emergencies a gynecologist has to meet in his day-to-day practice. It is also a matter of great concern that a woman might have to face any time during her childbearing period.

**Aim & Objective:** to determine the incidence, risk factors, clinical features, diagnostic methods, treatment of ectopic pregnancy.

**Materials and Methods:** All diagnosed cases of ectopic pregnancy admitted to Government General hospital during a period of one year. It was a prospective study using Contingency Table analysis and Chi-square test.

**Results:** A total of 51 patients were admitted with history suggestive of ectopic pregnancy. Frequency of ectopic pregnancy was 1:259 pregnancies. Risk factors were found in 49.1% of cases and the major contributors were dilatation and curettage (2%), PID(5.9%), infertility(13.7%), previous tubal surgery(13.7%) and previous abortions(9.8%). after the diagnosis of ruptured ectopic pregnancy was made. Blood transfusion was given in 72.5%. Postoperative period was uneventful in all of them.

**Conclusion:** As the incidence of ectopic pregnancy has been on the rise, screening of high-risk cases, early diagnosis and early intervention are required to enhance maternal survival and conservation of reproductive capacity.

Keywords: Ectopic pregnancy, maternal outcome.

### INTRODUCTION

Ectopic pregnancy is one of the most common acute abdominal emergencies encountered by gynecologists. It poses a significant concern for women during their childbearing years. An ectopic pregnancy occurs when a fertilized egg implants and grows outside the uterine cavity, most frequently in a fallopian tube. This condition can be life-threatening if not addressed promptly and effectively, and it can also impact fertility by potentially damaging vital reproductive organs, such as the fallopian tube, ovary, or sometimes even the uterus<sup>1</sup>.

Despite the challenges, advancements in medical technology have significantly improved early detection of ectopic pregnancy. The development of precise immunologic tests, such as  $\beta$ -hCG, along with the widespread availability of transvaginal ultrasounds—capable of identifying a gestational sac as small as 3 mm—has greatly enhanced diagnostic accuracy. Additionally, the use of diagnostic laparoscopy allows for early intervention and identification of ectopic pregnancies before they progress to rupture. These advancements enable clinicians to diagnose and manage ectopic pregnancies at an earlier stage, improving outcomes and

reducing risks.

Four key factors are known to increase the risk of ectopic pregnancy (EP):

1. **Tubal Abnormalities:** Past infections or surgeries that have caused damage to the tubal epithelium can impair normal tubal function, increasing the likelihood of an ectopic pregnancy.
2. **Previous Ectopic Pregnancy:** A history of having had an ectopic pregnancy increases the risk of experiencing another one.
3. **External Factors:** The use of an intrauterine device (IUD) for contraception can contribute to a higher risk of ectopic pregnancy.
4. **Assisted Reproductive Technologies:** Techniques such as in vitro fertilization (IVF) and other assisted reproductive methods can also elevate the risk of an ectopic pregnancy.<sup>2-6</sup>

## AIMS AND OBJECTIVES

1. To study the incidence of ectopic pregnancy.
2. To study the clinical presentation of ectopic pregnancy.
3. To study the risk factors associated with ectopic pregnancy.
4. To study the immediate morbidity and mortality associated with ectopic pregnancy.

## MATERIALS AND METHODS

Study design: Prospective randomised study

Duration of the study: 12 months

Sample size: 50

Source of data: The study was conducted in Department of OBG, Government General Hospital, Anantapuramu, over period of 1year. All consecutive patients presenting to the Department of OBG satisfying the inclusion criteria will be included in the study after obtaining informed consent .

### Inclusion criteria

All cases of ectopic pregnancy/suspected ectopic pregnancy by clinical or Sonological method.

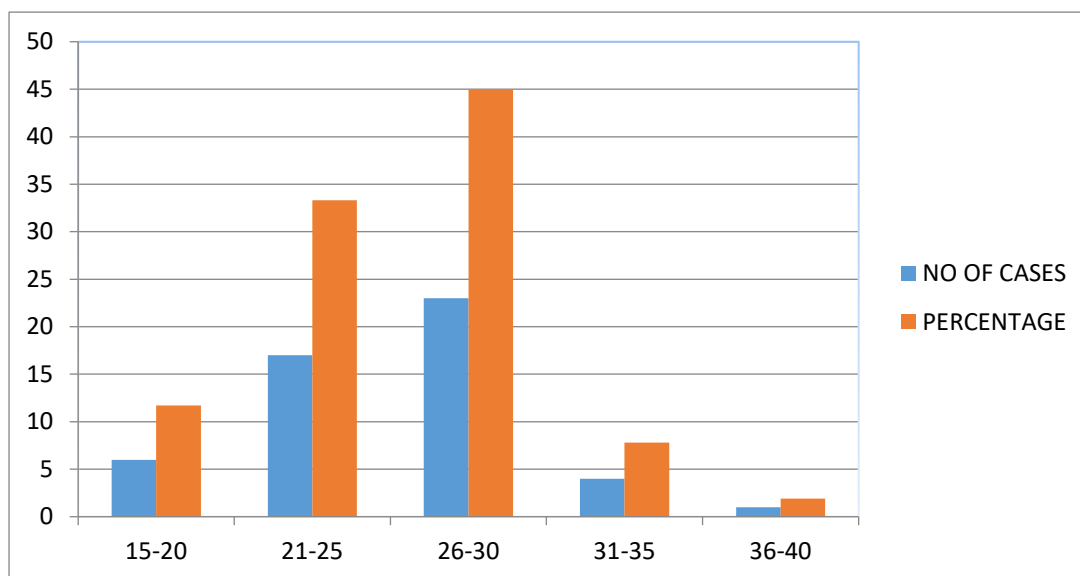
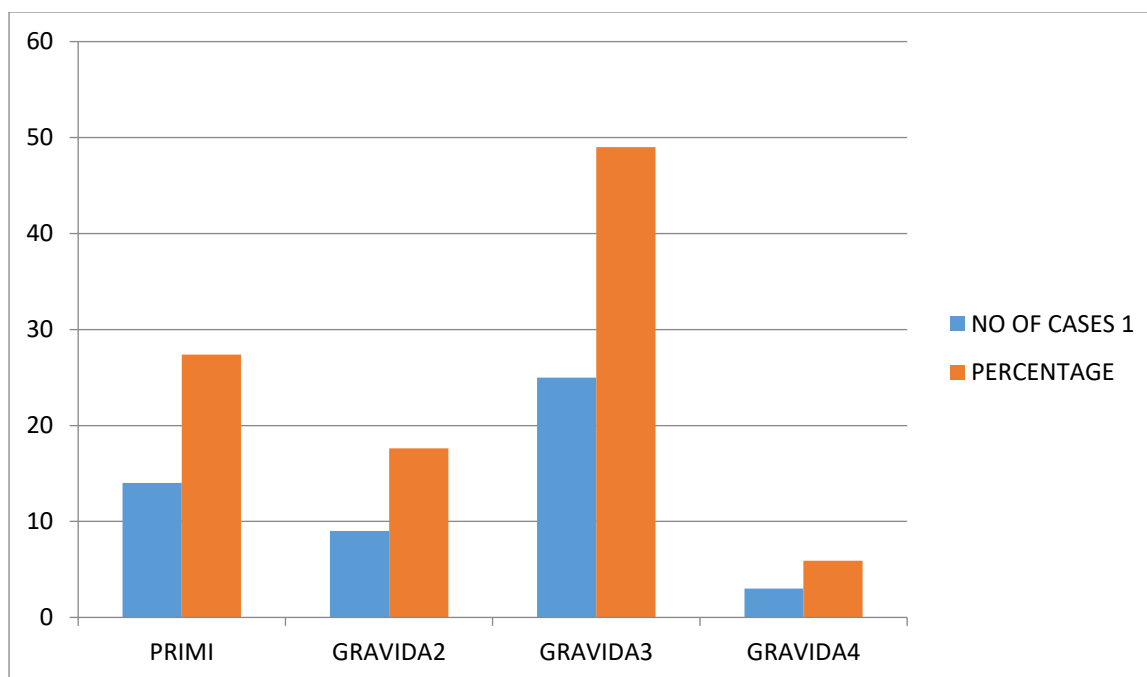
### Exclusion criteria

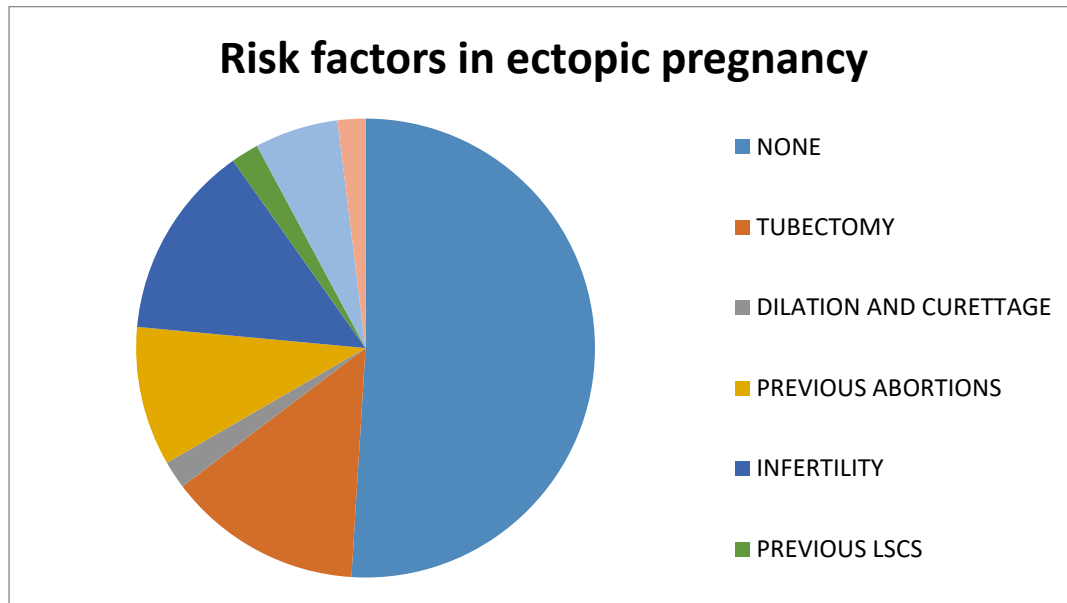
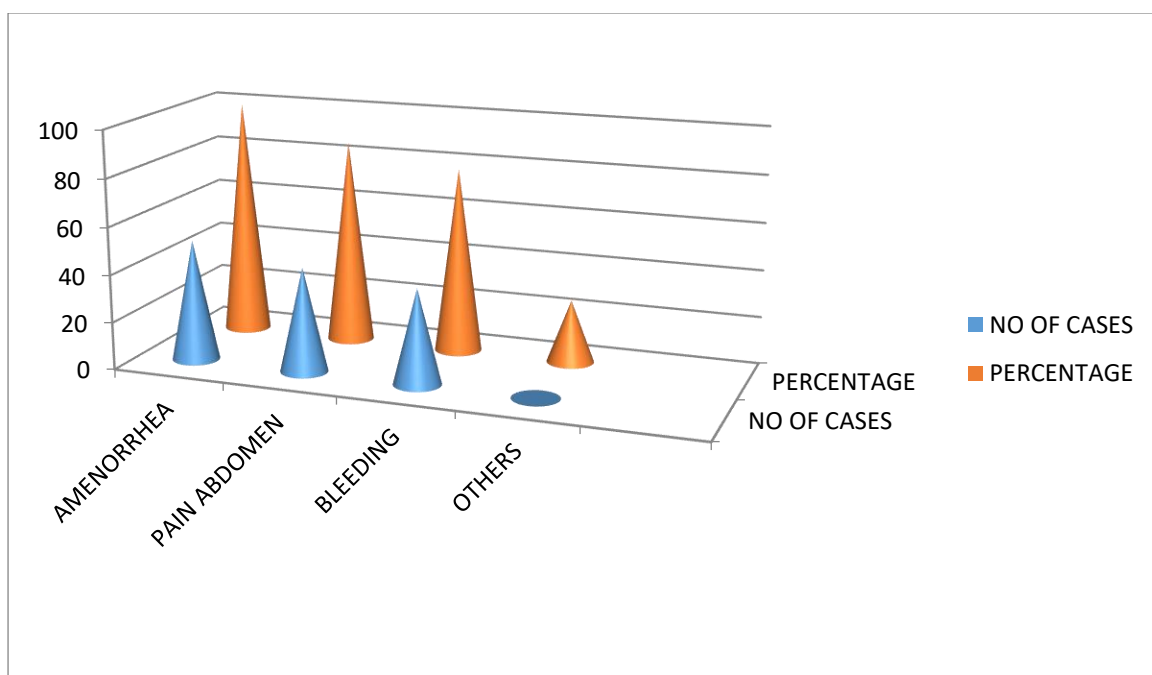
All intrauterine pregnancies excluded

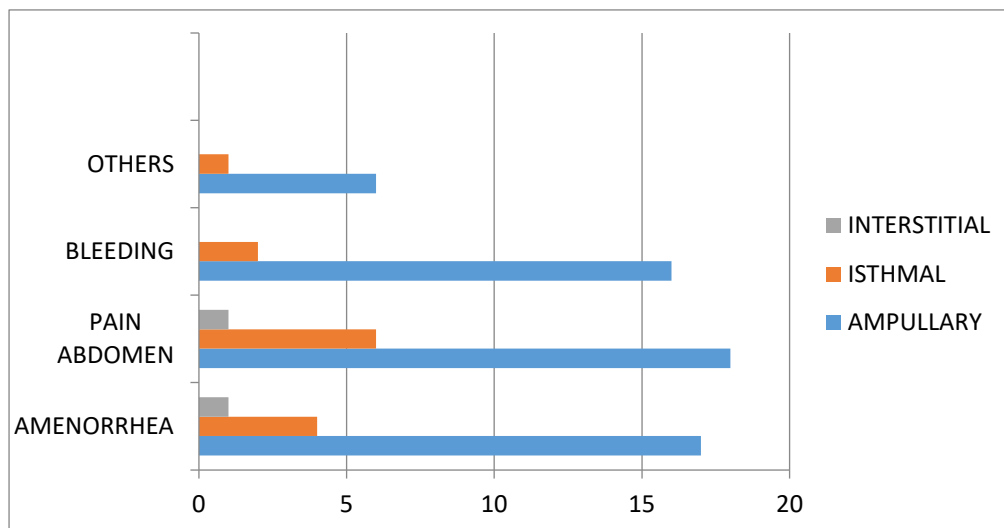
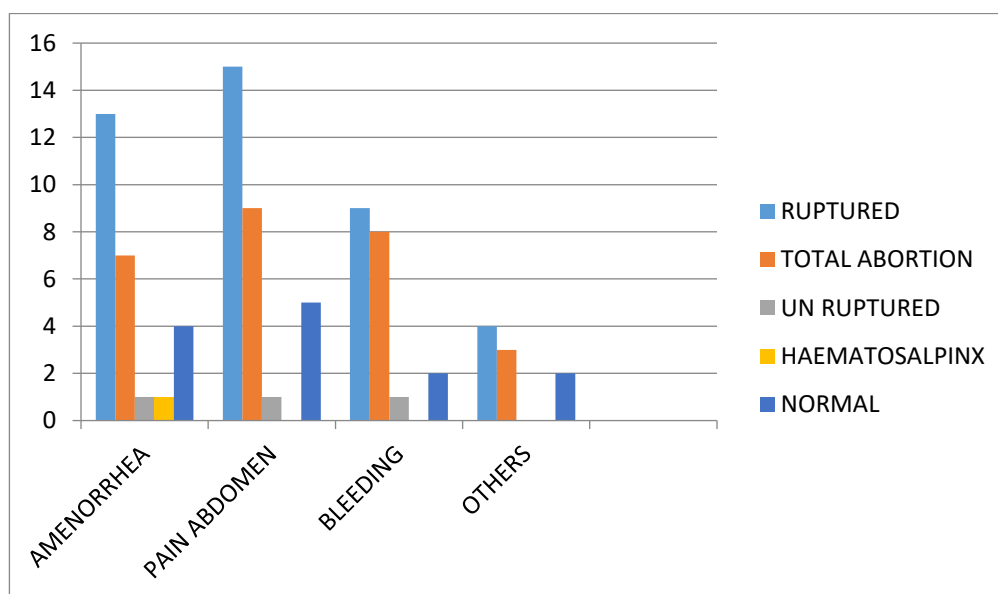
## METHOD OF DATA COLLECTION

A prospective observational study will be conducted on selected subjects based on inclusion criteria. Demographic details and clinical history was collected. The patient were subjected to ultrasound for ruptured ectopic pregnancy evaluation .The subject has to give informed written consent and cooperate for recording the socio- demographic profile, history of illness, general examination and clinical examination. The participant should be willing for the procedure and adhere to the standard protocol.

## RESULTS

**Fig. 1: Ectopic pregnancy in relation to age****Fig 2 : Distribution of cases based on parity**

**Fig 4 : Pie chart showing the Risk factors in ectopic pregnancy****Fig. 6 : Mode of presentation**

**Fig. 7 : Distribution of the sample by Site and mode of presentation****Fig. 8 : Distribution of the sample by mode of presentation and the condition of the tube****Fig. 9 : Distribution of the sample by general physical examination**

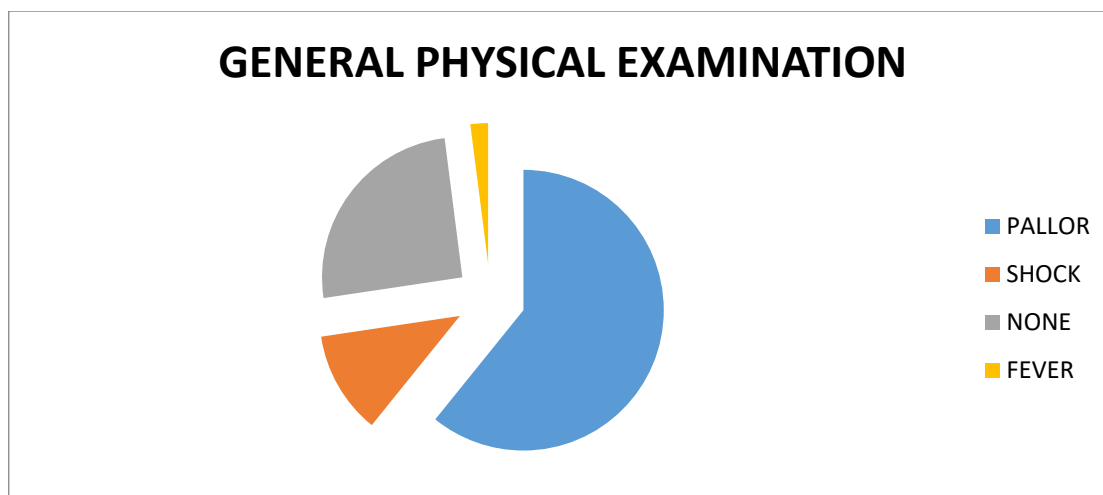


Fig. 14 : Distribution of the sample by ultrasonography

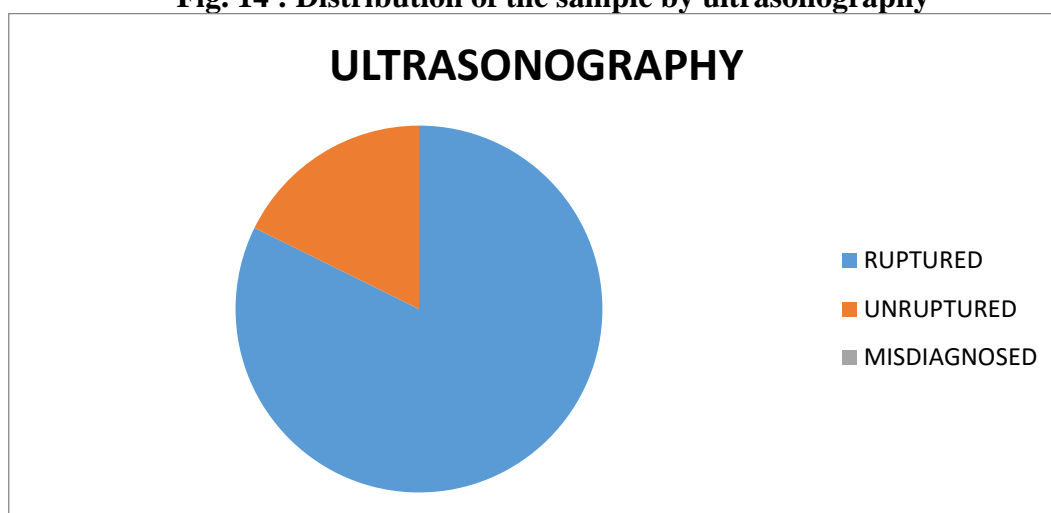
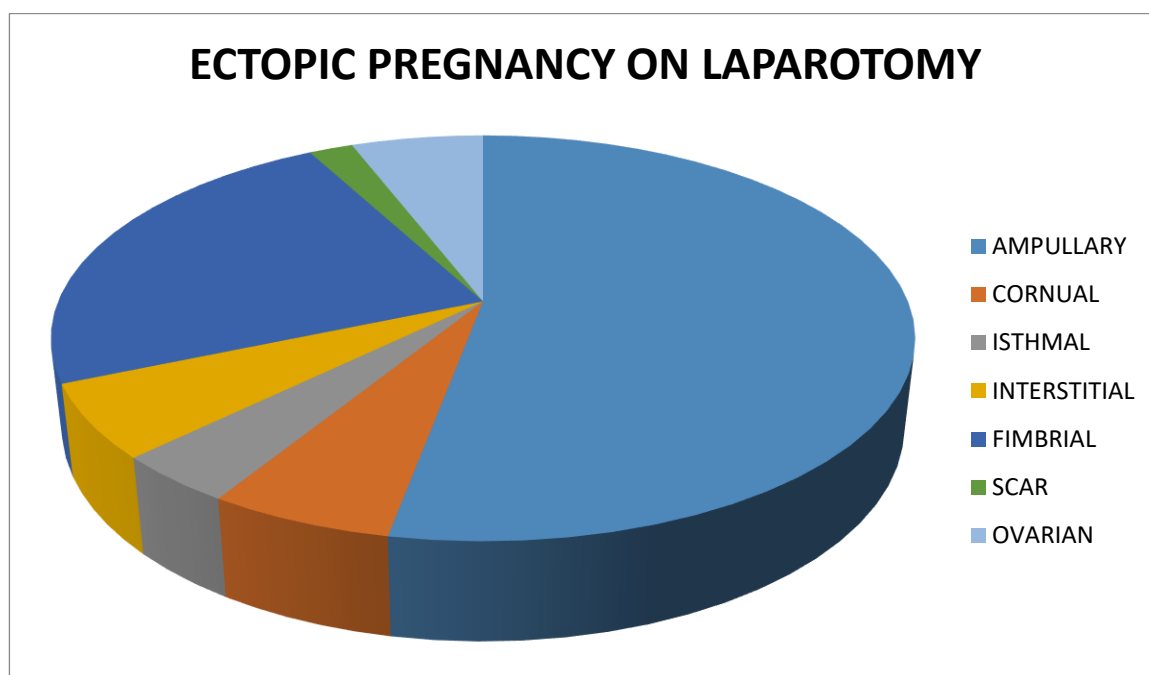


Fig. 15 : Site of ectopic pregnancy on laparotomy



## DISCUSSION

In our studies more number of ectopic pregnancies seen in 26-30 years with 45% followed by 21-25 yrs with 33.3%. According to ICMR Multicentric Case Control Study (1990) of ectopic pregnancy, majority of women were young and had low parity. Mean age  $28.01 \pm 4.9$  years<sup>6</sup>.

In the present study, the maximum incidence of ectopic occurred between primi and gravida. Munro Kerr and Eastman are of the opinion that there is no specific relation between parity and ectopic. But in the study by Rose et al, as parity increases there is a decrease in the incidence of ectopic pregnancy<sup>7</sup>.

In the present study, period of infertility varied from 4 to 6 years giving an incidence of 13.7% for infertility. Significant incidence of prolonged infertility and its causal relationship to ectopic pregnancy has been observed by several authors such as Eastman<sup>90</sup>, (1976) Iffy (1961, 63), Greenhill (1965).<sup>8</sup>

In the present study, only three patients gave a history PID which contributes to 5.9%. According to other studies done by March Banks (1998), Savitha Devi (2000) and Rose et al. (2002), the incidence of PID as a risk factor is 4, 25 and 34.4% respectively. 15.78% in Sudha et al (2016), 7% in Shrivastava et al. (2017)<sup>9</sup>

The classical history of a amenorrhoea, pain abdomen and vaginal bleeding was present only in 74.5%. Presence of shock was seen only in 13.7%.

## CONCLUSION

In conclusion, this study reaffirms the critical importance of early diagnosis and prompt intervention in managing ectopic pregnancies. The findings highlight the need for thorough clinical assessments, efficient diagnostic protocols, and effective surgical management to improve outcomes. Routine first trimester ultrasound should be done in all pregnant women at the booking visit itself. Early diagnosis and referral is the key factor in reducing the maternal morbidity and in preserving the future fertility. Sterilization could not rule out the possibility of an ectopic pregnancy. So, we should advise the patients to come for check up if she misses the periods as early as possible. The study's comprehensive approach provides valuable insights into the demographic and clinical characteristics of ectopic pregnancies, contributing to the broader understanding and management of this significant reproductive health issue.

## References

1. Te Linde's Operative Gynaecology, 11<sup>th</sup> edition Howard W. Jones, John A. Rock (2017); 771-799.

2. Lyons RA, Saridogan E, Djahanbakhch O. The reproductive significance of human Fallopian tube cilia. *Hum Reprod Update*. 2006;12(4):363-372.
3. Bouyer J, Coste J, Fernandez H, Pouly JL, Job-Spira N. Sites of ectopic pregnancy: a 10 year population-based study of 1800 cases. *Hum Reprod*. 2002;17(12):3224-3230.
4. Tintinalli JE, Stapczynski JS, Ma OJ, Yealy DM, Meckler GD, Cline D. Tintinalli's *Emergency Medicine: A Comprehensive Study Guide*. 8th ed. 2016:628-636. Chapter 98.
5. Barnhart KT, Sammel MD, Gracia CR, Chittams J, Hummel AC, Shaunik A. Risk factors for ectopic pregnancy in women with symptomatic first-trimester pregnancies. *Fertil Steril*. 2006;86(1):36-43.
6. ICMR – task free project – Multicentric case control study of ectopic pregnancy in India. *Journal of Obstetrics and Gynaecology of India* 1990; 40: 425.
7. Rose Jophy, Annamma Thomas, Arun Mhaskar. *J Obst and Gyn India* 2002; 52: 55-38.
8. Eastman NJ and Hellman L. *Williams Obs Ed 12*, New York, Appleton Century Crafts.
9. A clinical study of ectopic pregnancy in teritiary care centre in central india by mridula shrivastava etal 2017