

## A Retrospective Study of Ectopic Pregnancy in a Tertiary Care Hospital

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### Abstract

**Introduction:** Ectopic pregnancy is defined as when the gestational sac implants itself outside the uterus, i.e. fallopian tubes, ovary, cervix and peritoneum. It is an obstetric emergency with high morbidity and mortality. It is the fifth most common cause of death according to the most recent triennial report and also the most common cause of maternal mortality in first trimester.

**Materials and Methods:** This retrospective study was conducted in department of Obstetrics and Gynecology at Kurnool Medical College and Govt General Hospital, Kurnool, over a period of 2 years from January 2018 to December 2019. The case sheets of the patients with ectopic pregnancy were traced through the labour ward registers and operation theatre registers. Records were studied for demographic characteristics, period of amenorrhea, at time of diagnosis, presenting complains like pain abdomen and bleeding per vagina. Predisposing high risk factors were also analyzed. A documentation of UPT was done, USG findings were noted down. Important intra operative findings were also noted down. All the information was entered in a pre-structured proforma. All the data were analyzed by percentage method.

**Results:** Total 64 cases of ectopic pregnancy were admitted in this duration and total no. deliveries in these 2 year was 18176. So, incidence of ectopic pregnancy at our institute is 0.35%. Most common presenting complain was pain abdomen (in 93.75%) cases. Classical triad of pain, amenorrhea and bleeding was present in 48.3% cases.

**Conclusion:** Early diagnosis and timely intervention in the form of medical treatment or conservative surgery not only reduces maternal morbidity but also preserves future fertility.

**Key Words:** Ectopic pregnancy, morbidity, mortality

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### I. Introduction

Ectopic pregnancy is defined as when the gestational sac implants itself outside the uterus, i.e. fallopian tubes, ovary, cervix and peritoneum. It is an obstetric emergency with high morbidity and mortality. It is the fifth most common cause of death according to the most recent triennial report and also the most common cause of maternal mortality in first trimester.<sup>1</sup> The rate is about 1-2% of that of live births in developed countries, though it is as high as 4% in pregnancies involving assisted reproductive technology. It has been observed all over the world that incidence of ectopic pregnancy has increased during the last few years.<sup>2</sup> A number of causes have been attributed to it of which most are due to changing living trends of the society; increasing maternal age, tubal surgeries, pelvic inflammatory diseases, endometriosis, exposure to diethylstilbestrol (DES) in utero, taking hormonal pills containing estrogen, use of an intrauterine device (IUD), history of tuberculosis and assisted reproductive techniques. A meta- analysis has identified four strongly associated risk factors from the history, which are; previous ectopic pregnancy, previous tubal surgery, evidence of tubal pathology and in utero exposure to DES.<sup>3</sup> The current incidence of ectopic pregnancy is difficult to estimate from available data (hospitalizations, insurance billing records) because inpatient hospital treatment of ectopic pregnancy has decreased and multiple health care visits for a single ectopic pregnancy have increased, and also because it is difficult to determine the denominator (incidence of ectopic pregnancies/1000 pregnancies), as early pregnancy failures that do not result in delivery or hospitalization are often not counted.<sup>4</sup>

Symptoms most of the times are non-specific and mimics many other medical and surgical conditions and hence can be a reason for misdiagnosis.<sup>5</sup> Between 93-97% of ectopic pregnancies are located in a fallopian tube. Of these,13% are located in the isthmus, 75% are located in the ampulla, and 12% in the fimbriae. Nearly 2% of all ectopic pregnancies become established in other areas including the ovary, the cervix or the intra-abdominal region. Rupture of an ectopic pregnancy is a surgical emergency.<sup>6</sup> History and clinical examination

of patient together with serum beta HCG measurements and TVS examinations are done to reach to a final diagnosis. Early treatment of an ectopic pregnancy with methotrexate is a viable alternative to surgical treatment. Surgical treatment becomes necessary if rupture has already occurred.<sup>6</sup> Laparoscopy or laparotomy is performed in such cases and the affected fallopian tube is incised with removal of only the pregnancy (salpingostomy) or the affected tube is removed with the pregnancy (salpingectomy).<sup>7</sup>

Awareness of possible risk factors might help in early diagnosis and hence timely intervention (medical and conservative surgical measures in stable patients), which can help in decreasing subsequent morbidity, complications and mortality.

## II. Materials And Methods

This retrospective study was conducted in Department of Obstetrics and Gynecology at Kurnool Medical College&Govt General Hospital, Kurnool, over a period of 2 years from January 2018 to December 2019.

The case sheets of the patients with ectopic pregnancy were traced through the labour ward registers and operation theatre registers. Records were studied for demographic characteristics, period of amenorrhea, at time of diagnosis, presenting complains like pain abdomen and bleeding per vagina.

Predisposing high risk factors were also analyzed. A documentation of UPT was done, USG findings were noted down. Important intra operative findings were also noted down. All the information was entered in a pre-structured proforma. All the data were analyzed by percentage method.

### Inclusion criteria

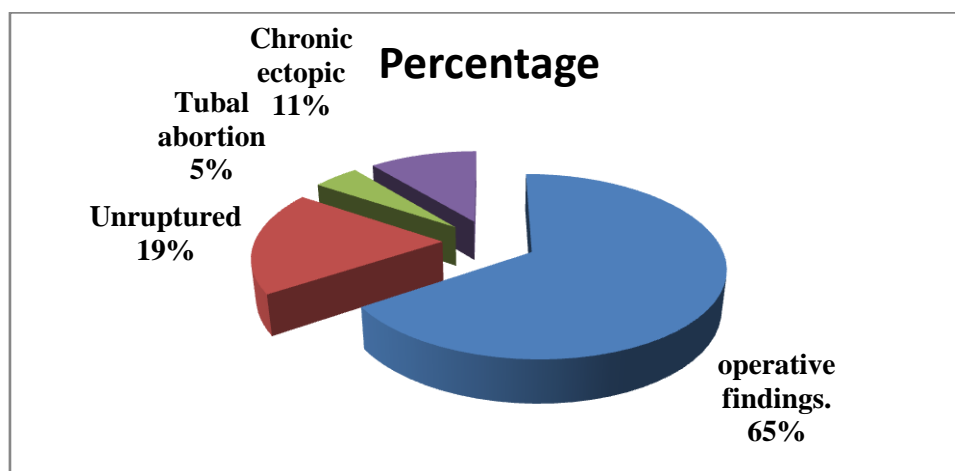
- All women with confirmed ectopic pregnancy

## III. Results

During study period of 2 year, the total no. of deliveries in our hospital was 18176 and 64 cases were diagnosed as ectopic pregnancy. So, incidence of ectopic pregnancy is 0.35%. Age ranged from 18-35 years. Majority of patient belonged to age group 20-30-year (73.43%) Table 1. In present study, 77% of patients were multigravida and 16% patient were primigravida and 7% patients were nullipara. Most of cases were diagnosed at gestational age of 6-8 weeks. (65.62%) (Figure 1).

Age	Number	Percentage
<20	6	9.37
21-25	30	46.87
26-30	17	26.56
>30	11	17.18

**Table 1: Distribution of age**



**Figure 1: Distribution of cases according to per operative findings**

35.93% patient had no risk factors. 29.68% patient has history of PID. 10.93% patient has history of previous tubal surgery. 9.37% patient has history of previous ectopic pregnancy and 6.25% patient had history of IUCD insertion (Table 2).

Risk factors	Number	Percentage
H/o PID	19	29.68
H/o previous ectopic	6	9.37
H/o IUCD insertion	4	6.25
H/o tubal surgery	7	10.93
Infertility	5	7.81

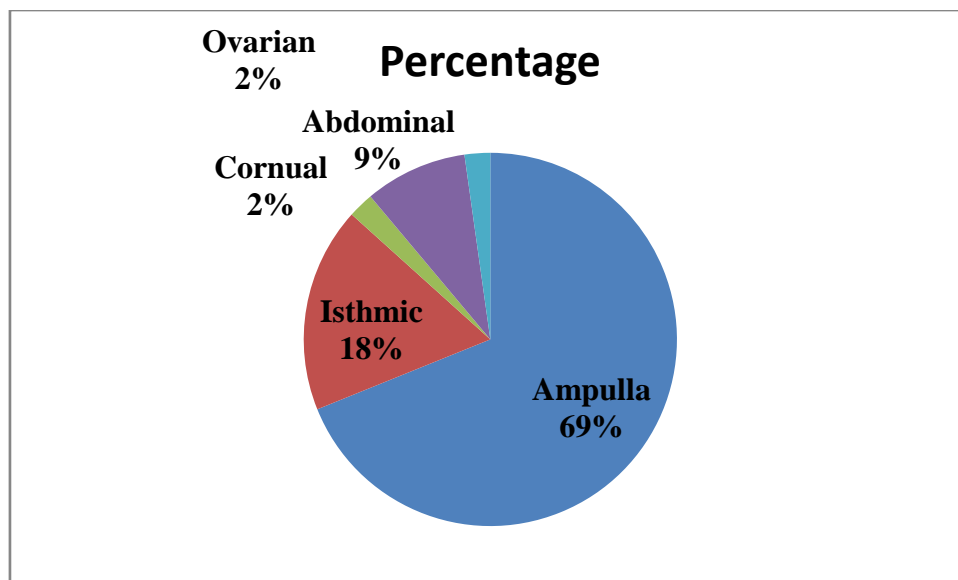
**Table 2: Risk factors**

Most common presenting complain was pain abdomen (93.75%) followed by amenorrhea (82.81%), bleeding per vagina was present in 51.56% cases, sign of adenexal tenderness was present in 65.62% cases. 28.12% patients presented with shock. Triad of pain, amenorrhea and bleeding per vagina was present in 48.43% cases (Table 3).

Clinical features	Number	Percentage
<b>Abdominal pain</b>	60	93.75
<b>Vaginal bleeding</b>	33	51.56
<b>Cervical tenderness</b>	30	46.87
<b>Adenexal tenderness</b>	42	65.62
<b>Shock</b>	18	28.12

**Table 3: Clinical features at presentation**

(48.43%) followed by isthmic (12.5%). There was only one case of ovarian pregnancy and one case of secondary abdominal pregnancy (Figure 2).



**Figure 2: Sites of ectopic pregnancy in patient who underwent surgery**

Ruptured ectopic pregnancy was present in 65.62% case, unruptured in 18.75%, tubal abortion in 4.68% and chronic ectopic in 10.93% cases. Fig.3. Laparotomy followed by salpingectomy was mainstay of treatment (79.68%). Salpingo oophorectomy was performed in 9.37% cases. Salpingectomy along with contralateral tubectomy was performed in 17.1% cases as their family was complete. 90% patient had blood transfusion. There was no maternal death in present study.

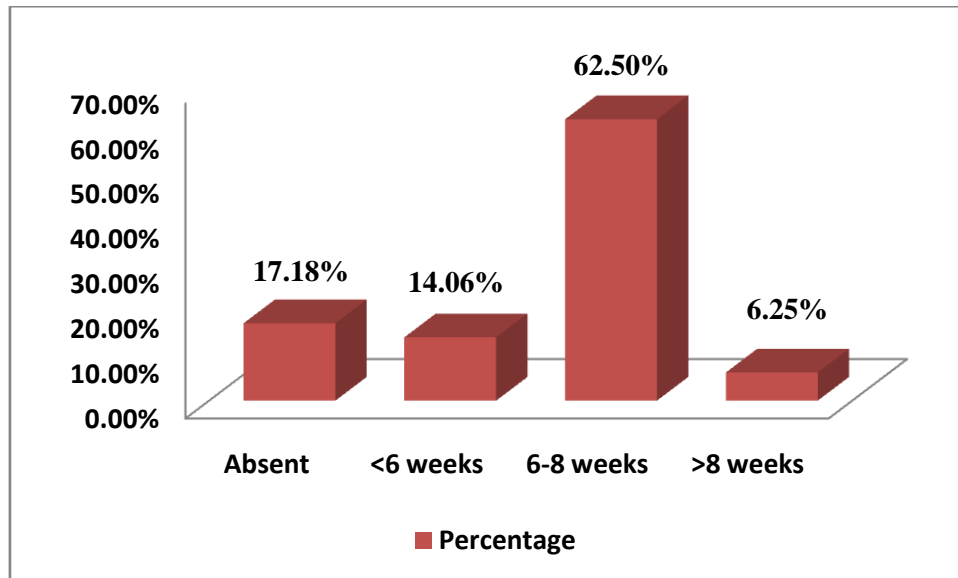


Figure 3: Distribution according to duration of amenorrhea

#### IV. Discussion

Ectopic pregnancy is an increasingly common and potentially catastrophic condition. The prevalence of ectopic pregnancy among women who present to emergency department with 1st trimester bleeding or pain or both varies from 6 to 16%. It remains as an important contributor to maternal mortality and morbidity and is one of commonest cause of 1st trimester maternal deaths. It accounts for 3.5%-7.1% of maternal mortality in India. In present study incidence of ectopic pregnancy majority of cases belong to age group 21-25 year. This is similar to study by Rakhi et al in which peak age incidence was 20-25 years. In ICMR multicentric case control study of ectopic pregnancy majority of patient were young.<sup>8</sup>

In present study history revealed presence of at least one high risk factor in 64.07% cases. History of PID was present in 29.68% patient. This is correlating with study done by Bhavna et al who reported history of PID in 22.7% cases with ectopic pregnancy.

In present study 7.81% patients were infertile which is similar to Samiya Mufti et al (8.77%) and Panchal D et al (11.66%). Association between infertility and previous pelvic infection and tubal pathology is possible explanation.

In present study 9.37 percent patients had history of previous ectopic pregnancy. Recurrence of ectopic has been reported in various studies, ranging between 3.2%-20%. So, such patients need to be educated about risk of recurrences. Significant incidence of prolonged infertility and its casual relationship to ectopic pregnancy has been observed by various authors.

In present study 93.75% patients had pain abdomen, 51.56% patient had vaginal bleeding, 46.87% had cervical tenderness, 62% cases had adenexal tenderness. Shock was present in 28.12% cases. 82.81% patient had amenorrhea. In a study by AO Igwegbe et al majority (80.61%) patient presented with abdominal pain and 35.8% presented with vaginal bleeding. In the study by Shiv Kumar HC et al, 95% patient had pain abdomen, 80% had amenorrhea, 70% had bleeding P/v, 30% had vomiting and 5% had urinary complains. In study by Shah N et al, the most common presenting symptoms was abdominal pain (97.31%) whereas history of amenorrhea and vaginal bleeding was found in 73.6% and 57.81% patient respectively.

In present study ruptured ectopic pregnancy was seen in 65.62% patient similar to results of Shetty et al who reported cases of ruptured ectopic as 61.3%.<sup>4</sup> In present study 18.75% patient had unexplained ectopic which is correlating with study of Gaddagi RA et al (8.1%).<sup>9</sup>

In present study ampulla was MC site of ectopic pregnancy (48.43%) followed by isthmus (12.5%). Cornual pregnancy was present in (6.25%) cases, abdominal in (1.56%) and ovarian in 1.56% cases. These are comparable to study by Bouyer et al who suggested sites of ectopic pregnancy as ampullary (70%), isthmic (12%), interstitial (2.4%), ovarian (3.2%) and abdominal (1.3%).<sup>10</sup>

#### V. Conclusion

Ectopic pregnancy is still a major challenge in obstetrical practice because of its bizarre clinical presentation and is one of the commonest causes of pregnancy related deaths in the first trimester. It can be diagnosed early by keeping a high index of suspicion. Despite exhaustive efforts to prevent ectopics 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. Mass education regarding safe abortion practices and post abortal care should be promoted. Unsupervised usage of MTP pill intake should be condemned.

### References

- [1]. Kirk E, Bottomley C, Bourne T. "Diagnosing ectopic pregnancy and current concepts in the management of pregnancy of unknown location". *Hum. Reprod. Update.* 2014;20(2):250-61.
- [2]. Ankum VM, Mol BW, Van der Veen F. Risk factors for ectopic pregnancy: a meta- analysis, *Fertil Steril.* 1996;65:1093-1099.
- [3]. Zane SB, Kieke BA, Kendrick JS, Bruce C. Surveillance in a time of changing health care practices: estimating ectopic pregnancy incidence in the United States. *Matern Child Health J.* 2002; 6:227.
- [4]. Crochet JR, Bastian LA, Chireau MV. "Does this woman have an ectopic pregnancy?: the rational clinical examination systematic review". *JAMA.* 2013;309(16):1722-9.
- [5]. Skipworth R. "A new clinical sign in ruptured ectopic pregnancy". *Lancet.* 2011;378(9809):27.
- [6]. Mahboob U, Mazhar SB. "Management of ectopic pregnancy: a two-year study". *Journal of Ayub Medical College, Abbottabad: JAMC.* 2006;18(4): 34-7.
- [7]. Priyadarshini B, Padmasri R, Jnaneshwari TL, Sowmya KP, Bhatara U, Hema V. Ectopic pregnancy: a cause for maternal morbidity. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology.* 2017;5(3):700-4.
- [8]. Patel M, Chavda D, Prajapati S. A retrospective study of 100 cases of ectopic pregnancy: clinical presentation, site of ectopic and diagnosis evaluation. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology.* 2016;5(12):4313-6.
- [9]. Poonam Y, Uprety D, Banerjee B. Ectopic pregnancy-two years review from BPKIHS, Nepal. *Kathmandu University Med J.* 2005;3:365-9.
- [10]. Rakhi MP, Nupur H, Agarwal A, Makkar P, Fatima A. Ectopic pregnancy: a devastating catastrophe. *Sch J App Med Sci.* 2014;2(3A):903-7.

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