

A Retrospective Analytical Study on Ectopic Pregnancy

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Abstract

Original Research Article

Background: The diagnosis of ectopic pregnancy was commonly missed, and the incidence of ectopic pregnancies is increasing, therefore it is important to be aware of the risk factors and associated morbidity and mortality. The aim and objectives was to find out the incidence, clinical manifestation, risk factors, management, morbidity, and mortality rates related to ectopic pregnancy. **Method & Materials:** Retrospective studies on ectopic pregnancies were conducted in the Obstetrics and gynecology department, Tezpur medical college, and hospital Assam, India from April 2021 to February 2022. All diagnosed cases during study periods were analyzed after applying the inclusion and exclusion criteria with respect to the 1. History. 2. Clinical presentation. 3. Investigations. 4. Treatment. **Results:** Out of 7085 deliveries, 31 were ectopic pregnancies (1 in 228.5 pregnancies). Women with age 20-30yrs had the highest incidence (64.4%). Ectopic pregnancies were more common in multiparous (51.6%) than in primipara (32.25%), and innulliparas (16.12). Common symptoms: abdominal pain (89.9%), amenorrhea (87%), bleeding per vagina (77.4%), asymptomatic (6%) patients. Urine pregnancy test positive in (100%). Etiology was pelvic infection (29%), infertility (10%), contraception (22.5%), h/o D&E (22.5%). Site of ectopic Common in the fallopian tube- ampullary region (64.51%), cornua (9.67%), isthmus (9.67%), fimbria (9.67%), followed by ovarian ectopic (6.45%). About (87%) of ectopic were ruptured, and (32.25%) presented with shock at the time of presentation. Most of the cases were ruptured ectopic pregnancies, salpingectomy done in 96.77%, and salpingo-oophorectomy in 3.23%. Morbidity was anemia 100%, blood transfusion (96.77%), and no mortality. **Conclusion:** Early diagnosis, recognition of underlying risk factors, and prompt intervention in the form of surgical or conservativewillcontribute to a reduction in the morbidity and mortality caused by an ectopic pregnancy.

Keywords: Ectopic, Laparotomy, Salpingectomy.

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INTRODUCTION

When a fertilized ovum implants outside of the normal uterine cavity, is called ectopic pregnancy [1]. In the first trimester, it is the most important cause of maternal morbidity and mortality [2]. Incidence of ectopic pregnancy is 1:160 deliveries. The first successful operations for an ectopic pregnancy was documented by Lawson Tait, the pioneer of gynecologic surgery, in 1883. His biggest challenge was figuring out the diagnosis. The clinical use of delicate transvaginal ultrasound, pregnancy testing, and diagnostic laparoscopy has significantly changed the preoperative diagnosis of the condition. Clinical manifestations might range from acute to chronic. Ectopic rupture rates have decreased, and there is now a choice between conservative and surgical treatment, for Unruptured fallopian tubes are currently a practical option. The vast range of clinical manifestations, from asymptomatic patients to acute abdominal and

hemodynamic shock, makes ectopic pregnancy diagnosis challenging [3].

Several risk factors have been linked to the development of an ectopic pregnancy, including smoking, prior abortions, multiple sexual partners, tubal corrective surgery, tubal sterilization, intrauterine devices, documented tubal pathology, infertility, assisted reproductive techniques, PID, and prior delivery.

The understanding of the underlying risk factors aids in identifying more vulnerable women, allowing for an earlier and more accurate diagnosis [3]. The majority of risk factors raise the possibility of previous Fallopian tube injury. These elements include any prior abdominal or pelvic surgery as well as pelvic infection [3]. Early detection lowers the chance of tubal rupture and enables the use of more conservative medical treatments [4].

This retrospective study was carried out to ascertain the incidence, clinical features, risk factors, treatments, morbidity, and mortality linked to ectopic pregnancy in a tertiary care hospital. Early diagnosis is essential to lowering maternal mortality and morbidity as a result of ectopic pregnancy. Early diagnosis has been made possible by the availability of sensitive BhCG and high-resolution sonography [5].

MATERIALS AND METHODS

Retrospective studies on ectopic pregnancies conducted in the Obstetrics and gynecology department, Tezpur medical college, and hospital Assam, India from April 2021 to February 2022.

The ectopic pregnancy patients' case sheets were tracked down using the labor ward and operating room registries. Information regarding the total no of deliveries, total number of ectopic pregnancies during the study period, demographic information, clinical

symptoms and signs, diagnostic methods, therapeutic measures, risk factors for the ectopic pregnancy, and related morbidity and mortality, were all collected. This retrospective analysis was carried out to determine the incidence, clinical manifestations, risk factors, treatment, morbidity, and mortality from ectopic pregnancy in a tertiary care facility.

RESULTS

In our hospital, 7085 deliveries occurred during the one-year study period, and 31 of those cases had ectopic pregnancies identified, for an incidence was 1 in 228.5 pregnancies.

Incidence of age

The average age of the patients was 29 years, with the youngest being 21 years old and the oldest being 45 years. The majority of the patients (64.4%) belonged to the 20–30-year age range (Table 1; Fig 1).

Table 1: Age of study population

Age	Number	%
20-25	10	32.2
26-30	10	32.2
31-35	7	22.5
>35	4	12.9

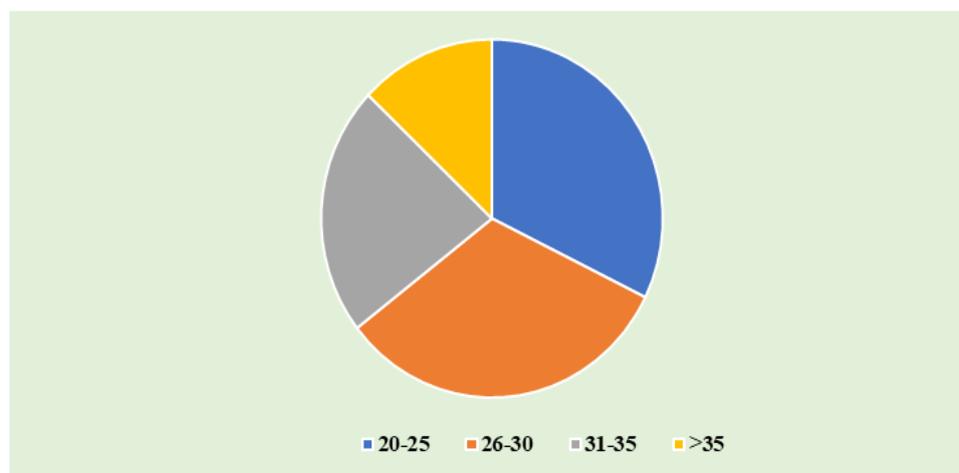


Fig 1: Pie diagram of age distribution of ectopic pregnancy

Gravida and parity

16.12% were nulliparas, 32.25% were primiparous, and the remaining 51.6% were multiparous (Table 2; Fig 2).

Table 2: Gravida and parity

Parity	Number	Percentage (%)
P0	5	16.12
P1	10	32.25
P2	12	38.7

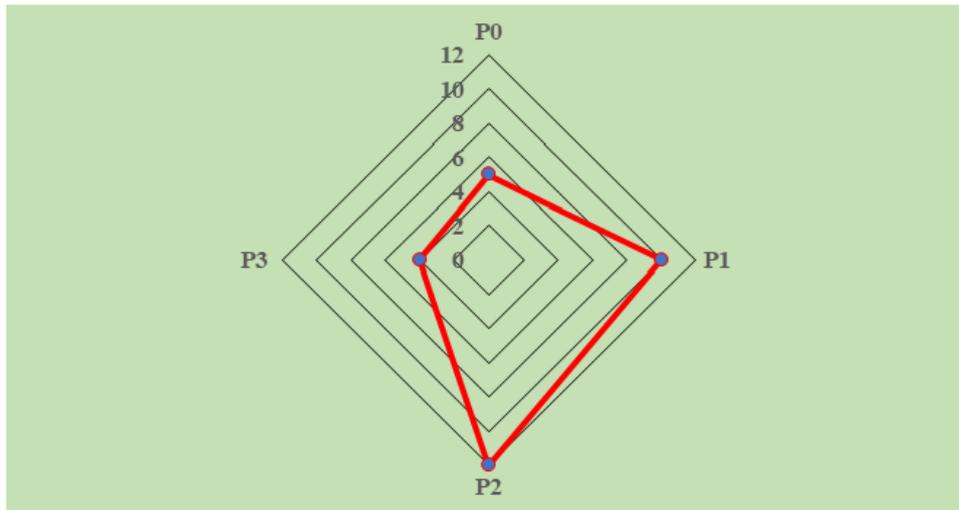


Fig 2: Number of cases according to parity

Clinical Presentation

Around 89.9 percent of the participants had pain abdomen in this study, while 87 percentages of the women reported having amenorrhea 77.4 percentages of women reported bleeding per vagina 58 percentage showed adnexal tenderness, and 6percent had no symptoms.

100 percent of cases, the UPT were positive. Unruptured ectopic pregnancy was found in 12.9 percentages of cases, ruptured ectopic pregnancy was found in 87 percentages of cases, and heterogeneous mass with little free fluid in POD was found in 32.2 percentages of cases (Table 3).

Table 3: Clinical presentation

Clinical feature	Number	Percentage (%)
Pain abdomen	29	89.9
Amenorrhea	27	87
Bleeding p/v	24	77.4
Adnexal tenderness	18	58
Asymptomatic	2	6
UPT	31	100
Unruptured	4	12.9
Rupture	27	87
Heterogeneous mass with POD fluid collection	10	32.2

Risk Factors

Of the numerous risk factors, PID is present in 29% of cases, H/o contraception uses in 22.5% of cases,

with 3.22% of patients having undergone sterilization, and 22.5% of patients having undergone dilatation and curettage (Table 4).

Table 4: Risk factors

Risk factor	Number	Percentage (%)
H/O PID	9	29
H/O Infertility	3	10
H/O Contraception	7	22.5
H/O Sterilization	1	3.22
H/O D&E	7	22.5

Site of Ectopic

Ectopic pregnancy was tubal in 93.55 percentages of cases, and it occurred more frequently on the right side (54.83%). Ampullary pregnancies in

64.51% of cases, the same incidence found in cornua, isthmus, and fimbria were 9.67%, and ovarian pregnancy was found in 6.45% (Table 5).

Table 5: Site of ectopic

Site of ectopic	Number	Percentage (%)
Ampulla	20 (9R+11L)	64.51
Isthmus	3(2R+1L)	9.67
Fimbria	3(2R+1L)	9.67
Cornual	3 (2R+1L)	9.67
Ovarian	2R	6.45

Surgical treatment in cases of ectopic gestation

Salpingectomy was the most often performed operation, taking place in 96.77% of the cases. When an ectopic pregnancy occurs after sterilization, salpingectomy of the affected tube and religation of the other tube was done to prevent an ectopic pregnancy recurrence.

Morbidity and mortality

Morbidity was anaemia 100%, blood transfusion 96.77% No maternal deaths were reported.

DISCUSSION**Incidence**

Over the past 20 years, ectopic pregnancies have become more common. In this study, the incidence was 1:288.5 births.

Risk factors and ectopic pregnancy

Numerous variables increase the chance of tubal dysfunction and injury, which in turn increases the likelihood of an ectopic pregnancy. Although there is some overlap, these factors as mechanical and functional elements in general. Mechanical issues including salpingitis and previous tubal resections, preceding ectopic pregnancy, which delay fertilized ovum to reach the uterine cavity. Functional variables such as alterations in the serum estrogen levels and progesterone slow the fertilized ovum's entry into the uterine cavity by changing the tubal motility.

PID and ectopic pregnancy

The incidence of ectopic pregnancy with a history of PID was 29% in the current study, which is comparable to the incidence of 25.8 % and 25% in Asuri SS *et al.*, [6] and Savitha Devi's study [7].

History of infertility

In the current study- 9.67%. In Asuri SS *et al.*, [6] study 4.83 %, in Rose *et al.*, [8], study- 15.1%, and in Arora *et al.*, [9] study- 11.2%,

Clinical Symptoms

There are some circumstances where the classical symptoms of abdominal discomfort, amenorrhea, and vaginal bleeding are not present. This is because the clinical picture depends on various factors, the most crucial one is the time when the ectopic pregnancy gets disturbance the more extensive and abrupt the disturbance the more distinct the clinical picture. Furthermore, an Ectopic

pregnancy when it is not disturbed or unruptured more likely to be undetected unless recognized by ultrasonography.

Physical examination

In contrast to cases in prior studies, the majority of cases 32, 25% in the current study presented with shock. The reason for this was that in the majority of cases 87% presented with ruptured ectopic pregnancy. Pallor was a significant finding that was observed in around 100% of ectopic pregnancies. Thus, the clinical assessment provides a crucial hint for the diagnosis. In this study, as the majority of cases suggested a ruptured ectopic pregnancy they were taken in for a laparotomy.

CONCLUSION

The obstetrician's worst nightmare is an ectopic pregnancy. The secret to successful management is a high level of suspicion and early diagnosis. The principle would be: "Have a high level of suspicion in a reproductive-age woman, those who have bleeding PV or abdominal pain or if she comes in shock regardless of tubal ligation as in many cases, there may be not even a history of amenorrhea. The main etiologic cause of ectopic pregnancy is thought to be PID. Due to the increase in PID cases over the past two decades have seen a remarkable increase in ectopic pregnancy. Preventing abortions and lowering the risk of ectopic pregnancy requires raising sexually active people's awareness of safe sexual behavior and contraception. Every high-risk female should get a screening at the earliest with TVS and serum hCG. The outcome of future fertility can be improved by concentrating on primary prevention, and early detection before rupture.

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Ethical Approval: This study was approved by the institutional Ethics Committee.

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REFERENCES

1. Walker, H. (2007). Ectopic pregnancy. *Clinobstet Gynecol*, 50, 89-99.
2. Mahboob, U., & Mazhar, S. B. (2006). Management of ectopic pregnancy: a two-year study. *Journal of Ayub Medical College Abbottabad*, 18(4), 34-37.
3. Cumming, F. G., Leveno, B. L., Hauth, J. C., Rouse, D. J., & Spong, C. Y. (2010). Ectopic pregnancy; In Williams obstetrics, 23rd United States of America MC Graw Hills Publishing, 238-254.
4. Barnhart, K. T. (2009). Clinical practice, Ectopic pregnancy, *N Engl J Med*, 361379-387.
5. Ory, S. J., Villanueva, A. L., Sand, P. K., & Tamura, R. K. (1986). Conservative treatment of ectopic pregnancy with methotrexate. *American Journal of Obstetrics and Gynecology*, 154(6), 1299-1306.
6. Asuri, S. S., & Kalpana, P. (2016). A clinical study of ectopic pregnancy. *IJRCOG*, 5, 3750-3754.
7. Savitha, D. Y. (2000). Laparoscopic treatment of ectopic pregnancy. *J Obst Gyn India*, 50, 69.
8. Rose, J., Thomas, A., & Mhaskar, A. (2002). Ectopic pregnancy: Five years experience. *J Obstet Gynecol India*, 52, 55-58.
9. Arora, R., Rathore, A. M., Habeebullah, S., & Oumachigui, A. (1998). Ectopic pregnancy--changing trends. *Journal of the Indian Medical Association*, 96(2), 53-54.