

ORIGINAL RESEARCH

Study of incidence, risk factors, clinical presentation, management and morbidity associated with ectopic pregnancy

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ABSTRACT

Background: Ectopic pregnancy is a potentially life threatening condition and its increasing incidence and its impact on women's fertility need to be studied. **Aim and objective:** To study the incidence, risk factors, clinical characteristics, management and immediate morbidity associated with ectopic pregnancy. **Methods:** This prospective observational study was conducted in the post graduate department of Obstetrics and Gynaecology, S.M.G.S Hospital, GMC Jammu, India from November 2021 to October 2022. **Results:** The incidence of ectopic pregnancy was 1.4%. Majority were in the age group of 24-30 years (59.5%) and were multiparous (71.9%). Main risk factors for ectopic pregnancy were history of previous abortion (28.6%), previous caesarean section (26.6%) and pelvic inflammatory disease (7.3%). Most common presenting symptoms were amenorrhoea (92.7%) and pain abdomen (89.9%). Majority of cases were ruptured (71%) and thus laparotomy was done in 90.3% patients. Most common morbidity was blood transfusion which was done in 81% patients. 3% patients were admitted to ICU due to hemodynamic instability. **Conclusion:** By reducing and identifying the risk factors and identifying the patients at the earliest it is possible to improve the prognosis so far as morbidity and fertility are concerned.

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INTRODUCTION

Ectopic pregnancy refers to implantation of a fertilized egg in a location outside of the uterine cavity, including the fallopian tubes (approximately 97.7%), cervix, ovary, cornual region of uterus and abdominal cavity. For tubal pregnancy, the most common site is ampulla, followed by isthmus, fimbria and others. Most ectopic pregnancies occur when a fertilized egg attaches to the inside lining of a fallopian tube (a tubal ectopic pregnancy). If not treated quickly enough, the tube can burst which causes internal bleeding that can lead to collapse and even death. Ectopic pregnancy represents 1-2% of all pregnancies.

AIM AND OBJECTIVE

To study the incidence, risk factors, clinical characteristics, management and immediate morbidity associated with ectopic pregnancy.

MATERIALS AND METHODS

This prospective observational study was conducted in the Post Graduate Department of Obstetrics

and Gynaecology,

S.M.G.S Hospital, GMC Jammu, India from November 2021 to October 2022. All diagnosed cases of ectopic pregnancy based on clinical presentation and radiological findings were included in the study. Data was compiled and subjected to statistical analysis.

RESULTS

Total deliveries during this study period were 18470. Total 259 cases were diagnosed with ectopic pregnancy thereby making an incidence of ectopic pregnancy being 1.40% of total number of deliveries at our hospital. Out of these, 227 cases were diagnosed as tubal ectopic pregnancy. Ovarian ectopic pregnancy was seen in 11 cases and 5 cases had pregnancy in rudimentary horn. Cesarean scar ectopic pregnancy was seen in 2 patients and only 1 patient had cervical ectopic pregnancy. Age distribution of the patients varied from 18 to 44 years where majority of the patients were in the age group of 24 to 30 years with a mean age of 29.22 years.

TABLE –1: AGE WISE DISTRIBUTION OF PATIENTS

AGE (in years)	N	%
18-24	26	10.0
24-30	154	59.5
30-36	68	26.3
36-42	10	3.9
>42	1	0.4
Total	259	100.0

Majority of patients were multiparous i.e 71.9% and 28.1% were nulliparous

TABLE –2: PARITY WISE DISTRIBUTION OF PATIENTS

PARITY	N	%
0	73	28.1
1	75	29.0
2	84	32.4
3	16	6.2
4	10	3.9
5	1	0.4
Total	259	100.0

On analysing various risk factors it was observed that maximum number of patients i.e. 28.6% had history of previous abortion. History of previous LSCS was observed in 26.6% patients. H/o pelvic inflammatory disease was present in 7.3% patients. 3.86% patients had infertility. History of previous ectopic, previous abdominopelvic surgery and IUCD insertion were in 3.47% patients each.

TABLE –3: DISTRIBUTION OF CASES BY RISK FACTORS

Risk Factors	N	%
Previous Abortion	74	28.6
Previous LSCS	69	26.6
Previous Ectopic	9	3.47
IUCD	9	3.47
Infertility	10	3.86
H/O Pelvic Inflammatory Disease	19	7.33
Uterine Anomaly	3	1.16
Previous Abdomino Pelvic Surgery	9	3.47
Concieved After Art	3	1.16

Majority of patients i.e 92.7% had history of amenorrhea followed by pain abdomen which was observed in 89.9% patients. The typical triad of amenorrhea, pain abdomen and bleeding per vaginum was seen in 19.6% patients. Abdominal tenderness was the commonest sign, observed in 65.6% patients.

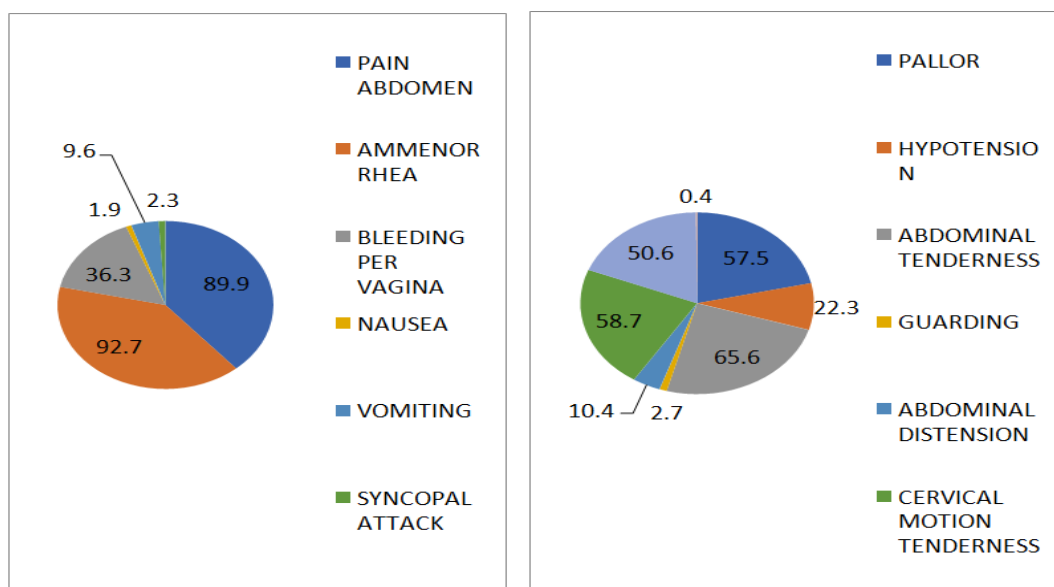


Figure: Pie chart showing distribution of patients according to symptoms & signs

The commonest procedure done was emergency laparotomy and salpingectomy in 224(86.4%) patients. 10 patients were successfully managed by laparoscopy. Suction and evacuation was done in 2 patients in view of scar ectopic pregnancy. 9 patients were successfully managed by medical treatment with methotrexate.

TABLE –4: MANAGEMENT

Management	N	%
Expectant Management	4	1.5
Medical Management With Methotrexate	9	3.5
Laparotomy	234	90.3
Laparoscopy	10	3.9
Suction & Evacuation	2	0.8
Total	259	100.0

Morbidity included anemia, blood transfusion and surgical site infection. 81% patients received blood transfusion. Due to hemodynamic instability 3% patients were admitted to ICU for intensive monitoring. Surgical site infection was observed in 0.8% patients which was managed with injectable antibiotics. There was no mortality in the study period.

DISCUSSION

Ectopic pregnancy still remains one of the major causes of maternal morbidity and mortality. In this study, the incidence of ectopic pregnancy was found to be 1.4% of total deliveries. This is in agreement with the most studies where incidence ranged from 0.5-1.5%. In present study the majority of patients (59.5%) were in the age group of 24-30 years with a mean age of 29.22 ± 3.99 years which was comparable to mean age of 28.79 ± 4.25 years in study conducted by Ranji et al., (2018). In our study 42.9% were multiparous which was comparable with the study conducted by Shetty VH et al., (2014) and Basnet et al., (2015). Various risk factors were studied and majority i.e. 28.6% patients had history of previous abortion. Previous abortion and previous LSCS were the commonest risk factors which were also found in the study conducted by Ranji et al., (2018). In our study, majority i.e. 92.7% patients were having amenorrhea as the most common symptom. 89.9% patients presented with pain abdomen. Similar results were found in the study conducted by Tahmina S et al., (2016) where majority i.e. 93% patients presented with amenorrhea. Majority of the patients i.e. 234 (90.3%) underwent laparotomy as patients presented with complications of tubal rupture and hemoperitoneum. Similar results were found in study conducted by VS Sudha et al., (2016) where 90.35% patients were managed by laparotomy. Fallopian tube was the most common site of ectopic pregnancy seen at laparotomy/laparoscopy i.e. in 227 patients (87.6%). Among the tube, ampulla was most commonly involved i.e. in 185 patients (71.4%). Similar results were found in the study conducted by Tahmina S et al., (2016) which revealed that majority of the patients (94%) had fallopian tube involvement. The commonest site of ectopic pregnancy in our study is consistent with many studies conducted in India as ampullary portion of the fallopian tube is the most common site of fertilization and therefore, the most common site of ectopic pregnancy. Morbidity included anemia, blood transfusion, ICU admission and surgical site infection. Blood transfusion was

needed in 81% of patients. Similar results were found in study conducted by Kumari S et al., (2018) where 82.3% of patients received blood transfusion.

CONCLUSION

Ectopic pregnancy still remains one of the major causes of maternal morbidity and mortality. As it is common in reproductive age group, it should not be missed in extremes of age. Surgical management should be individualized depending upon the hemodynamic status, concern for future fertility and the presence of a healthy contralateral tube. By reducing and identifying the risk factors and identifying the patients at the earliest it is possible to improve the prognosis as far as morbidity and fertility are concerned.

CONFLICTS OF INTEREST

Nil

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