

Original Research Article

Clinical profile, risk factors and outcomes of ectopic pregnancy in a tertiary care hospital

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ABSTRACT

Background: Extrauterine or ectopic pregnancy occurs when the fertilized ovum becomes implanted in tissue other than the endometrium. Aim of this study is to find the incidence, clinical presentation, risk factors, management of ectopic pregnancy.

Methods: It was an observational study done in the department of obstetrics and gynaecology, Shri Lal Bahadur Shastri medical college Mandi, Himachal Pradesh for period of one year from 1st January 2024 to 31st December 2024.

Results: A total 3628 women delivered in the tertiary care hospital during the study period of one year. The incidence of ectopic pregnancy was 1.87%. The most common age group was 20-30 years. Incidence of ectopic pregnancy was more in multipara (73.53%). Most common clinical presentation was amenorrhoea in 95.58% followed by abdominal pain in 80.88% patients. The failed tubal ligation was the risk factor in 14.74% patients. Unilateral salpingectomy was done in 45.58%, methotrexate treatment in 50%, expectant treatment in 2.94% and laparotomy for one caesarean scar ectopic pregnancy. Anaemia was observed in 75.6% patients, blood transfusion in 55.2% and ICU admissions were 5.8%.

Conclusions: Early recognition of ectopic pregnancy is the key to diagnosis and management. It is important to maintain high degree of suspicion of ectopic pregnancy with pregnancies of unknown location.

Keywords: Ectopic pregnancy, Tubal pregnancy, Unilateral salpingectomy

INTRODUCTION

Extrauterine or ectopic pregnancy occurs when the fertilized ovum becomes implanted in tissue other than the endometrium.¹ Although 70% of ectopic gestations are located in the ampullary segment of the fallopian tube, such pregnancies may occur in other sites.¹ Incidence has increased. The reasons are increased prevalence of chronic pelvic inflammatory disease, tubal plastic operations, ovulation induction and IUCD use.²

Anything that causes inflammation of the fallopian tube or disruption of tubal motility increases the risk of ectopic

pregnancy.¹ The most important risk factor for an ectopic pregnancy is a prior ectopic pregnancy with a recurrent risk of 10% to 15% after first ectopic pregnancy and 30% after second ectopic pregnancy.¹ The reported incidence in literature is 1.5-2.0% of all pregnancies but varies significantly among countries.³ The rate of ectopic pregnancy increases with age, with 0.3% of pregnancies among 15- to 19-year-old women and 1% of pregnancies among 24- to 44-year-old women.⁴ Because the classic symptoms, triad of amenorrhea, abdominal pain, and vaginal bleeding is present only in 30% to 40% of patients with ectopic pregnancy, the diagnosis requires a high index of clinical suspicion.⁵ Ultrasonography is probably

the single most important investigation in a woman with bleeding in early pregnancy.⁶ Increased morbidity and occasionally even fatality are consequences of delayed diagnosis.⁷ Single-dose methotrexate appears to be the treatment of choice if medical therapy is indicated and selected.¹ Laparoscopy is the preferred approach for surgical management of ectopic pregnancies.¹

Aim of this study was to find the incidence, clinical presentation, risk factors, management of ectopic pregnancy.

METHODS

It was an observational study of ectopic pregnancy done in the department of obstetrics and gynecology, Shri Lal Bahadur Shastri Medical College Mandi, Himachal Pradesh for period of one year from 1st January 2024 to 31st December 2024.

Sample size

A total of 68 women fulfilling the eligibility criteria were included in the study.

Inclusion criteria

All the cases of confirmed ectopic pregnancy were included in the study.

Exclusion criteria

The following criteria were excluded from the study: 1) All intrauterine pregnancies, 2) Patients who did not give consent.

Clinical data of the patients was collected from hospital register and case files. The detailed clinical history regarding age, menstrual history, obstetric history, urine pregnancy test, serum beta HCG reports, general physical and gynaecological examination were collected and analysed. Transvaginal ultrasound reports showing adnexal mass, to localize gestational sac, size of ectopic mass, presence of cardiac activity and any evidence of free fluid in pouch of douglas was recorded. Outcome of medical treatment or surgical treatment, history of blood transfusion and ICU admissions were recorded on proforma.

Statistical analysis

Data was entered in excel sheet and analysed by using software SPSS 17.

RESULTS

A total 3628 women delivered in the tertiary care hospital during the study period of one year. Only 68 (1.87%) out of 3628 pregnant women in the study period had ectopic

pregnancy. The most common age group was 20-30 years (67.64%) (Table 1).

Table 1: Age distribution (n=68).

Age (in years)	No. of patients	Percentage
<20	2	2.95
20-30	46	67.64
>30	20	29.41

Incidence of ectopic pregnancy was more in multipara 50 (73.53%) (Table 2).

Table 2: Parity (n=68).

Variables	No. of patients	Percentage
Primigravida	18	26.47
Multipara	50	73.53

Most common clinical presentation was amenorrhoea in 65 (95.58%) followed by abdominal pain in 55 (80.88%) patients. Asymptomatic patients were 18 (26.47%) and 5 (7.35%) patients were in shock (Table 3). Some patients presented with more than one clinical feature.

Table 3: Clinical presentation.

Variables	No. of patients	Percentage
Amenorrhoea	65	95.58
Abdominal pain	55	80.88
Bleeding per vaginum	10	14.70
Shock	5	7.35
Asymptomatic	18	26.47

Most common site of ectopic pregnancy was ampulla of fallopian tube in 38(55.88%) patients. There was only one case of caesarean scar pregnancy and one case of rudimentary horn pregnancy (Table 4).

Table 4: Site of ectopic pregnancy.

Variables	No. of patients	Percentage
Ampulla	38	55.88
Isthmus	15	22.20
Fimbria	11	16.17
interstitium	2	2.94
Scar pregnancy	1	1.47
Rudimentary horn pregnancy	1	1.47

In 35 (51.4%) patients no risk factor attributing to ectopic pregnancy was found. The failed tubal ligation was the risk factor in 14.74% patients (Table 5).

Definitive diagnosis was unruptured ectopic pregnancy in 37 (54.41%) patients and ruptured ectopic in 20 (29.41%) (Table 6).

Table 5: Risk factors.

Variables	No. of patients	Percentage
No risk factor	35	51.4
Pelvic inflammation	7	10.29
infertility	7	10.29
Previous ectopic	7	10.29
Tubal ligation failure	10	14.74
Tubal recanalisation	1	1.47
Previous caesarean scar	1	1.47

Table 6: Definitive diagnosis.

Variables	No. of patients	Percentage
Unruptured ectopic	37	54.41
Tubal abortion	11	16.17
Ruptured ectopic	20	29.41

Unilateral salpingectomy was done in 31 (45.58%), methotrexate treatment 34 (50%), expectant treatment in 2 (2.94%) and laparotomy for one caesarean scar ectopic pregnancy (Table 7).

Table 7: Management of ectopic pregnancy.

Variables	No. of patients	Percentage
Unilateral salpingectomy	31	45.58
Methotrexate treatment	34	50.00
Expectant treatment	2	2.94
Laparotomy for scar ectopi	1	1.47

Anaemia was observed in 75.6% patients, blood transfusion in 55.2% and ICU admissions were 4 (5.8%).

DISCUSSION

In present study the incidence of ectopic pregnancy was 1.87% which is similar to 1.056% in study by Malik et al.⁸ About 67.64% patients were in the age group 20-30 years which is comparable to (62.16%) in the study by Godria et al.⁹ In the present study, 73.53% patients were multipara. The rate of ectopic pregnancy increases with age, with 0.3% of pregnancies among 15- to 19-year-old women and 1% of pregnancies among 24- to 44-year-old women.⁴ The most common presentation was amenorrhoea (95%) followed by abdominal pain (80.88%) which is comparable to 98% and 85% respectively in the study by Mandal et al.¹⁰

Tubal ectopic pregnancy was the commonest 95.58% whereas caesarean scar pregnancy was only one case. The most common site of ectopic pregnancy was ampulla of fallopian tube (55.88%) followed by isthmus (22.20%) which is similar to the study by Malik et al.⁸ In present study, in about 51.4% patients there was no risk factor detected for ectopic pregnancy. According to Novacs, up

to half of women who present with an ectopic pregnancy have no identifiable risk factor, therefore a high index of suspicion is critical.¹ The tubal ligation failure was the risk factor in 10 (14.74%) patients which is comparable to (13%) in the study by Mandal et al. However, ectopic pregnancy can occur without any obvious risk factors also.¹¹⁻¹³ In the present study, 54.41% patients had unruptured ectopic pregnancy, 16.17% tubal abortion and 29.41% ruptured ectopic whereas in study by Godria et al 81.08% were ruptured ectopic pregnancies.¹² This may be because our patients reported on time with amenorrhoea and pain abdomen and secondly there is 24 hours emergency ultrasound facility in our tertiary care hospital. Due to the same reason, in our study the medical management with methotrexate was done in 50% patients which is higher than the reference studies. Early detection and timely intervention enabled us to decrease the morbidity and mortality among the patients.

The limitations of the study are that there is no comparison group and only patients who came to our SLBSGMCH, Mandi (H.P) were included in the study.

CONCLUSION

Early recognition of ectopic pregnancy is the key to diagnosis and management. It is important to maintain high degree of suspicion of ectopic pregnancy with pregnancies of unknown location. Easy accessibility of the pregnant women to health care institutes, 24 hour emergency ultrasound facilities and blood bank facilities attribute to early detection, timely intervention and decrease the morbidity and mortality of the patients.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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