Original Articles

A Retrospective Cross Sectional Study on Ectopic Pregnancy: A Two Year Study

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ABSTRACT

BACKGROUND : Ectopic pregnancy is a life threatening condition. It is importance to diagnose it early to prevent complications. This study aims to understand the risk factors, common group age of presentation, signs , symptoms and management. This study was conducted for 2 years in Civil Hospital, Ahmedabad.

AIM : To determine the incidence, clinical features, risk factors and morbidity and mortality associated with ectopic pregnancy in a tertiary care hospital.

METHOD : A retrosceptive cross sectional study was done for years in Obstetrics and Gynecology Department, Civil Hospital, Ahmedabad from August 2019 to July 2021 for the period of 2 years.

RESULTS : 82 cases of suspected ectopic gestation were observed during the study period of two years at our institution. Total no. of delivery during the same period were 12660. The incidence of ectopic pregnancy was 0.64%. Amenorrhoea was present in 79.2% cases,pallor was seen in 81.7% of cases. Ultrsonography reported 47.2 % of them as ruptured, 24.3% unruptured.

CONCLUSION : Early diagnosis of ectopic is very crucial for appropriate conservative medical management. Clinicians should be suspicious of ectopic pregnancy in any woman of reproductive age presenting with abdominal or pelvic symptoms.

INTRODUCTION

Ectopic pregnancy is a life-threatening condition that every practicing obstetrician and gynecologist encounters in his or her practice.

It greatly endangers the life of the woman and also her future fertility by causing damage to the fallopian tubes and/or ovary.

The word ectopic is from Greek; 'EX' and 'TOPOS' meaning “out of place”. It is defined as any intra or extra uterine gestation in which the fertilized ovum implants at an aberrant site inconducive to growth and development.[Fallopian tube: ampullary (79.6%); isthmic (12.3%); fimbrial (6.2%), Ovary (0.15%) and abdominal cavity (1.4%)] or in an abnormal position within the uterus cornual (1.9%), cervical (0.15%). Highest percentage (98.3%) of ectopic pregnancies occur in the fallopian tubes.

Risk factors like previous ectopic pregnancy, tubal corrective surgery, tubal sterilization, intrauterine devices, documented tubal pathology, infertility, assisted reproductive techniques, PID, smoking, prior abortions, multiple sexual partners and prior delivery have been implicated in the development of the ectopic pregnancy.3

This retrospective analysis was done to determine the incidence, clinical features, risk factors and morbidity and mortality associated with ectopic pregnancy in a tertiary care hospital.

METHODS

This study was conducted in the department of obstetrics and gynaecology, B.J Medical College, Ahmedabad from august 2019 to July 2021 for the period of 2 years. The case sheets of the patients with ectopic pregnancy were traced through the labour ward registers and operation theatre registers. Information regarding the total number of ectopic pregnancies in the study period, details of demographic characteristics, clinical symptoms and signs, diagnostic tools used, treatment, risk factors for the ectopic pregnancy as well as associated morbidity and mortality were obtained.

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On admission detailed history and clinical evaluation done. Clinical evaluation included general examination of patient- including presence of anaemia, shock, restlessness, cold extremities, pulse, respiration, blood pressure, temperature and cardiovascular and respiratory systems; abdominal examination- for presence of mass, signs of free fluid in peritoneal cavity, guarding, rigidity, tenderness and Vaginal examination –for presence of bleeding, its nature, colour of the vaginal mucosa, position of the cervix, tenderness on movement of the cervix, size of the uterus, mobility and consistency, presence of mass and/or tenderness in any of the fornices.

On admission after a detailed examination, a sample of blood was drawn for Blood grouping, Rh typing and cross-matching to arrange blood for transfusion. Investigations like Hb%, HCT, routine blood tests as advised by anaesthesiologists; TLC, DC, ESR if necessary; urine pregnancy test and ultrasonography were carried out.

In acute cases with the typical symptoms i.e. amenorrhoea, pain and bleeding which was confirmed by USG (wherever possible) followed by laparotomy.

Patients in shock were managed and taken for surgery.

Blood transfusion was given intra-operative or postoperative as per the r observation and taken for laparotomy subsequently.

Laparotomy were performed under either spinal or general anaesthesia. Abdomen was opened with suitable incision. The site of ectopicgestation, status of the fallopian tube, contralateral tube, ovaries and uterus was noted. As majority of the patients had ruptured tubal gestation, a decision for removal of the tube i.e., unilateral salpingectomy was made. Salpingectomy was combined with contralateral tubectomy in patients who did not wish to conceive. In cases with obvious pathological findings on the opposite side, the diseased adnexa were removed.

Prophylactic antibiotics were given to all patients at the time of induction of anaesthesia. Patients were followed up in the post-operative period with special attention to the development of fever, abdominal pain, distension of the abdomen and wound sepsis. Patients were discharged with an advice to come for follow up after a week.

RESULTS

82 cases of suspected ectopic gestation were observed during the study period of two years at our institution. Total no. of delivery during the same period were 12660. The incidence of ectopic pregnancy was 0.64%. The classical history of amenorrhoea, pain abdomen and vaginal bleeding was present only in 51.2% cases in the present study.

Presence of shock was seen only in 10 cases (12.1%). Acute lower abdominal pain was the most common presenting feature in 96.3% of the cases

Table 1: Incidence of ectopic pregnancy

Total Number of Ectopic	Incidence
82	0.64

Table 2: Ectopic Pregnancy in Relation to Age

Age group	No. of cases	Percentage
15-20	2	2.4
21-25	24	29.2
26-30	23	28.0
31-35	21	25.6
35-40	9	10.9
41-45	3	3.6
Total no of cases	82	100

The study group includes maternal age ranged from 15 years to 45 years, the youngest being 18 years and oldest was 42 years.

Table 3: Distribution of cases based on parity

Parity	No. of cases	Percentage
Nulliparous	13	15.8
1	27	32.9
2	32	39.0
3	10	12.1

Table 4: Distribution of the cases by socio-economic status

According to Kuppuswamy's classification, 47 patients (57.3%) belonged to low socio- economic status and 35 patients (42.6%) belonged to medium socio-economic status and none belonged to high socio- economic status.

Socio economic status	No. of cases	Percentage
Low	47	57.3
Medium	35	42.6
High	0	0
Total	82	100

Table 5: The interval between last pregnancy and ectopic pregnancy

The study showed that as the interval between pregnancies increases, the incidence of ectopic pregnancy also increases. In this study, when the interval between pregnancies was >5 years, the incidence of ectopicpregnancy was 39%. While in 13 cases (15.8%) it was the first pregnancy.

Interval	No. of cases	Percentage
Nullipara	13	15.8
1-2 years	8	9.7
3-5 years	29	35.3
5+ years	32	39.0
Total	82	100

Table 6 : Mode of presentation

The typical triad of amenorrhoea, pain abdomen and bleeding was observed in 42 (51.2%) cases. Abdominal pain was the most significant symptom in 79 (96.3%) patients.

Symptom	No. of cases	Percentage
Amenorrhea	65	79.2
Pain in abdomen	79	96.3
Bleeding	67	81.7

Table 7: General physical examination

Symptoms	No. of cases	Percentage
Pallor	67	81.7
Shock	10	12.1
None	5	6.0

Table 8 : Site of ectopic

On surgery, 78 cases were found to be tubal. There was one case each of ovarian and secondary abdominal pregnancy and two cases werecornual. 48 cases had pathology in right side and in 34 cases the pathology was in left side. Thus, ectopic pregnancy occurred more commonly in the right side.

Site	No. of cases	Percentage
Tubal	78	95.1
Ovary	1	1.2
Cornual	2	2.4
Primary abdominal	1	1.2

Table 9: Condition on laparotomy

There were 39 cases (47.2%) of ruptured ectopic on surgery. Out of which 14 were tubal rupture. 28 cases (27.8%) were unruptured and 14 cases (23.6%) presented as tubal abortion. There was one case of secondary abdominal pregnancy.

Condition	No. of cases	Percentage
Ruptured	39	47.2
UnrupturedT	28	27.8
ubal abortion	14	23.8
Secondary abdominal	1	1.2

Table 10 : Uterine size

Majority of the cases had normal uterine size 74 (90.2%). It was found increased in 8 (10.8%) cases only.

Uterine size	No. of cases	Percentage
Normal	74	90.2
Increased	8	10.8

Table 11: Urine pregnancy test

Urine pregnancy test is a simple test which helped in rightly diagnosing cases of ectopic pregnancy. It was negative in 2 (2.43%) cases while positive in 80 (97.5%) case.

Urine pregnancy test	Positive	Negative
No. of Cases	80	2
Percentage	97.5	2.43

Table 12: Distribution by ultrasonography

Ultrasonography was done 62 cases (75.6%) were ruptured and 20 (24.3%) were unruptured in ultrasonography, fluid in POD detected in 72 cases (87.8%).

Ultrasonographic findings	No. of cases	Percentage
Ruptured	62	75.6
Unruptured	20	24.3
Fluid in POD	72	87.8

Table 13. Distribution by risk factor

	No. of cases	Percentage
Previous induced abortion	8	9.7
Pelvic inflammatory disease	24	29.2
Ovulation induction	6	7.3
IVF	6	7.3
Previous spontaneous abortion	6	7.3
Previous ectopic	2	3.6
H/O IUCD	2	3.6
H/O Tubectomy	3	3.6
No factor found	43	52.4

DISCUSSION

Ectopic pregnancy can occur at any age. A study by Rose et al found maximum cases in age group of 21-30 years (43%) which corroborated with the present study (55.6%).

In the present study, the maximum incidence of ectopic occurred between, parity 0 and 3. In the study by Rose et al, as parity increases there is a decrease in the incidence of ectopic pregnancy. Munro Kerr and Eastman are of the opinion that there is no specific relation between parity and ectopic According to ICMR Multicentric Case Control Study (1990) of ectopic pregnancy, majority of women were young and had low parity.

No specific sign or symptom can be said to be pathognomonic of ectopic gestation. The classical history of amenorrhoea, pain abdomen and vaginal bleeding was present only in 51.2% cases in the present study.

Presence of shock was seen only in 10 cases (12.1%). Acute lower abdominal pain was the most common presenting feature in 96.3% of the cases. Amenorrhoea was present in 79.2% cases, incidence is comparable to Rose et al2 and Pendse et al.10 Oumachigui et al reported absence of amenorrhoea in 23% cases.

Vaginal bleeding was present in 81.7% comparable to 65.4% and 66.6% in study by Rose et al and Pendse et al respectively. Other symptoms were giddiness, nausea, vomiting and syncopal attacks.

On general examination, pallor was seen in 81.7% of cases similar to other studies by Rose et al and Pendse et al having incidence 0f 70.9% and 84.5% respectively.2,10

Ultrsonography reported 47.2 % of them as ruptured, 24.3% unruptured. Most of our patients were referred from outside with diagnosis of ruptured ectopic pregnancy. So, our treatment modality was surgical.On surgery 48 cases had pathology in right side and in 24 cases the pathology was in left side. Thus, ectopic pregnancy occurred more commonly in the right side.

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