



A PROSPECTIVE CROSS SECTIONAL STUDY ON ECTOPIC PREGNANCIES- A TWO YEAR STUDY

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ABSTRACT

Ectopic pregnancy is a life threatening condition. It is important to diagnose it early to prevent complications. This study aims to understand the risk factors, common age of presentation, signs, symptoms and management. This study was conducted for years in sir T hospital Bhavnagar. **Aim:** to determine the incidence, clinical features, risk factors and morbidity and mortality associated with ectopic pregnancy in a tertiary care hospital.

KEYWORDS :

INTRODUCTION

Ectopic pregnancy, in which the gestational sac is outside the uterus, is the most common life threatening emergency in early pregnancy. Ectopic pregnancy is usually diagnosed in the first trimester of pregnancy. The most common gestational age at diagnosis is 6 to 10 weeks, but fetal viability can be discovered until the time of delivery (*Murray et al*). Ectopic pregnancy is a considerable cause of maternal morbidity, causing acute symptoms such as pelvic pain and vaginal bleeding and long-term problems such as infertility. Most common site of ectopic pregnancies implant in the Fallopian tube, is in the ampullary region, isthmus or fimbria.

Interstitial or cornual ectopics, where the pregnancy implants in the intra myometrial portion of the Fallopian tube, are less common. Rarely, an ectopic pregnancy implants at an extra tubal location, such as the cervix, ovary, abdomen, liver, spleen or Cesarean section scar (*Korhonen, et al*).

In developing countries, a majority of hospital based studies have reported ectopic pregnancy case-fatality rates of around 1%-3%, 10 times higher than those reported in developed countries (*Shetty and Shetty*).

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

MATERIAL AND METHOD

This was a retrospective study of ectopic pregnancies at Sir T Hospital. Bhavnagar from July 2020 to July 2022. The case sheets of the patients with ectopic pregnancy were traced through the labour ward registers and operation theater registers. Information regarding the total number of deliveries 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.

On admission detailed history and clinical evaluation were done. Clinical evaluation included general examination of patient- including presence of anemia, 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, color 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 observation and taken for laparotomy subsequently. Laparotomy were performed under either spinal or general anaesthesia. Abdomen was opened with a suitable incision. The site of ectopic gestation, 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 advice to come for follow up after a week.

RESULTS

During the study period of two years, there were a total of 7418 deliveries in our hospital and 70 cases of ectopic pregnancies were operated giving the incidence of ectopic pregnancies of 9.4/1000 deliveries.

Table-1 incidence of ectopic pregnancy

| Total number of ectopic | incidence |
|-------------------------|-----------|
| 70 | 0.94% |

Table -2 Ectopic pregnancy in relation to age

| Age group | No of cases | Percentages |
|-----------|-------------|-------------|
| 15-20 | 2 | 2.8 |
| 21-25 | 22 | 31.4 |
| 26-30 | 18 | 25.71 |
| 31-35 | 17 | 24.28 |

| | | |
|-------------------|----|-------|
| 36-40 | 9 | 12.85 |
| 41-45 | 2 | 2.85 |
| Total no of cases | 70 | 100 |

Study group includes maternal age ranges from 15 years to 45 years. Youngest being 15 and oldest was 45 years.

Table 3: Distribution of cases based on parity

| Parity | No. of cases | Percentage |
|-------------|--------------|------------|
| Nulliparous | 08 | 11.4 |
| 1 | 25 | 35.7 |
| 2 | 30 | 42.9 |
| 3 | 07 | 10 |

Table 4: Interval between pregnancy and ectopic pregnancy

| Interval | No. of cases | Percentage |
|-----------|--------------|------------|
| Nullipara | 8 | 11.4 |
| 1-2 years | 7 | 10 |
| 3-5 years | 24 | 34.3 |
| 5+ years | 31 | 44.3 |
| Total | 70 | 100 |

Table 5: Mode of Presentation

| Symptoms | No. of cases | Percentage |
|-----------------|--------------|------------|
| Amenorrhoea | 57 | 81.4 |
| Pain in abdomen | 64 | 91.4 |
| bleeding | 58 | 82.9 |

Typical triad of amenorrhoea, pain in abdomen and bleeding was observed 41(58%) cases. Abdominal pain was the most significant symptom in a 91% patients.

Table 6: General Physical Examination

| Symptoms | No. of cases | Percentage |
|----------|--------------|------------|
| Pallor | 55 | 78.6 |
| Shock | 13 | 18.6 |
| None | 02 | 2.9 |

Table 7: Site of ectopic pregnancy

| Site | No. of cases | Percentage |
|-------------------|--------------|------------|
| Tubul | 69 | 98.6 |
| ovary | 00 | 00 |
| Cornual | 01 | 1.4 |
| Primary abdominal | 00 | 00 |

One surgery 69 cases were found in tubul. There was one cases of cornual.43 cases have Pathology on the right side while 27 having Pathology on the left side.

Table 8: Condition on laparotomy

| Condition | No. of cases | Percentage |
|---------------------|--------------|------------|
| Ruptured | 39 | 55.7 |
| Unruptured | 24 | 34.3 |
| Ubal abortion | 07 | 10 |
| Secondary abdominal | 00 | 00 |

Table 9: Uterine size

| Uterine size | No. of cases | Percentage |
|--------------|--------------|------------|
| Normal | 64 | 91.4 |
| increase | 06 | 8.6 |

Majority of cases having normal uterine size. It was found increased in 6 cases.

Table 10: Uterine pregnancy test

| Urine pregnancy test | Positive | Negative |
|----------------------|----------|----------|
| No. of cases | 70 | 00 |
| Percentage | 100 | 00 |

Uterine pregnancy test is a simple test which helps in the right diagnosis of ectopic pregnancy. It was positive in all 70 cases.

Table 11: Distribution by ultrasonography

In Ultrasonography 52 cases were ruptured and 18 Were unruptured. fluid in POD detected in 62 cases.

Table 12: Distribution by risk factor

| | No. of cases | Percentage |
|-------------------------------|--------------|------------|
| Previous induced abortion | 05 | 7.14 |
| Pelvic inflammatory disease | 22 | 31.4 |
| Ovulation induction | 06 | 8.6 |
| IVF | 04 | 5.7 |
| Previous spontaneous abortion | 02 | 2.9 |
| H/O IUCD | 02 | 2.9 |
| H/O Tubectomy | 01 | 1.4 |
| No factor found | 28 | 40 |

DISCUSSION

Although women with ectopic pregnancy frequently have no identifiable risk factors, a prospective case-controlled study has shown that increased awareness of ectopic pregnancy and a knowledge of the associated risk factors helps identify women at higher risk in order to facilitate early and more accurate diagnosis.

Most risk factors are associated with risks of prior damage to the Fallopian tube. These factors include any previous pelvic or abdominal surgery, and pelvic infection (*Sivalingam, et al*). *Chlamydia trachomatis* has been linked to 30-50% of all ectopic pregnancies. The exact mechanism of this association is not known but it has been proposed that in addition to distortion of tubal architecture, it may be due to an effect on the tubal microenvironment (*Akande et al*). Ectopic pregnancy is more common in women attending infertility clinics even in the absence of tubal disease (*Sivalingam, et al*).

Currently, diagnosis in unruptured ectopic pregnancy is achieved using a combination of transvaginal ultrasonography and measurement of serum β -hCG concentrations. One of the key elements in the diagnosis is the exclusion of a viable or non-viable IUPit was reported then that the absence of an intrauterine gestational sac at a β -hCG concentration over 6500 IU/l had a sensitivity of 100%, specificity of 96%, positive predictive value of 87% and negative predictive value of 100% for the prediction of ectopic pregnancy.

A ruptured ectopic pregnancy should be strongly suspected if a woman has a positive pregnancy test and presents with syncope and signs of shock including tachycardia, pallor and collapse. There may be abdominal distension and marked tenderness (*Sivalingam, et al*).

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 82.9% cases in the present study. Presence of shock was seen only in 13 cases (18.6%). Acute lower abdominal pain was the most common presenting feature in 91.4% of the cases. Amenorrhoea was present in 81.4% cases, Vaginal bleeding was present in 78.6%. Ultrasonography reported 55.7 % of them as ruptured, 34.3% unruptured. Most of our patients were referred.

CONCLUSION

Early diagnosis of ectopic pregnancy is very crucial for appropriate management. clinician should be suspicious of ectopic pregnancy in every women of reproductive age presenting with abdominal or pelvic symptoms.

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