

## Management and Outcome of Ectopic Pregnancy: A Retrospective Study

Trupti Nayak

### How to cite this article:

Trupti Nayak. Management and Outcome of Ectopic Pregnancy: A Retrospective Study. Indian J Obstet Gynecol. 2019;7(2):209-212.

### Abstract

*Background and Aim:* An ectopic pregnancy occurs when a fertilized ovum implants outside the normal uterine cavity. Present retrospective study was performed to determine the clinical features, risk factors, treatment and morbidity and mortality associated with ectopic pregnancy in a tertiary care hospital. *Material and Methods:* A Retrospective study was conducted in the gynaecology and Obstetrics (G & O) ward of the hospital from July 2006 to May 2010. Two researchers of this study were from same unit of G & O department of the study hospital. All the cases diagnosed intra operatively as ectopic pregnancy (EP) were considered as final study population and included in the study. After the patient became stable, history taken post-operatively as per pre designed and semi structured proforma. *Results:* Out of 103 women, 45 (69%) from urban area, 14 (13.59%) from rural area and 44 (42.72%) data was not available. Out of 104 women, 46 (44.66%) in 19-25 age group. Out of 103 women 11 (10.68%) women tested for VDRL and reported negative and 7 (80%) women tested for HIV and reported negative. Per operatively 4 women (3.88%) had omental adhesions, 3 (2.91%) had intestinal adhesion and 2 (1.94%) had tuboperitoneal adhesions and 1 (0.897%) had chocolate cyst. Paracentesis 2 (1.94%) cases and culdocentesis in 1 (0.97%) noted. *Conclusion:* In our study, there is higher chances of occurrence

of ectopic pregnancy in case of Lap TL (11 cases) abdominal TL (7 cases) 17.48% and with past H/o Cu-T usage are 11 cases (10.68%). More mode of treatment was salpingectomy. Total mortality 1 case (0.97%) occurred during the study ruptured due to of ectopic.

**Keywords:** Diagnostic scopy; Ectopic pregnancy; Salpingectomy; TVS, UTP.

### Introduction

Ectopic pregnancy is a common life-threatening emergency in the developing world and its frequency is still high. Ectopic pregnancy is the commonest cause of maternal morbidity and mortality in the first trimester of pregnancy [1,2,3]. Complications of early pregnancy are common clinical conditions that often require emergency care. The patient may or may not be aware that she is pregnant at the time of evaluation at the emergency department. Diagnosis is frequently missed and should be considered in any woman in the reproductive age group presenting with abdominal pain or vaginal bleeding especially when combined with an episode of collapse or syncope. Ectopic pregnancy is a complication of pregnancy in which the products of conception develop outside the uterine cavity. Ectopic

Associate Professor, Department of Obstetrics & Gynaecology, Shri M.P. Shah Medical College, Jamnagar, Gujarat 361008, India.

**Corresponding Author:**  
**Trupti Nayak,**

Associate Professor, Department of Obstetrics & Gynaecology, Shri M.P. Shah Medical College, Jamnagar, Gujarat 361008, India.

**E-mail:** [researchguide86@gmail.com](mailto:researchguide86@gmail.com)

**Received on** 24.01.2019

**Accepted on** 07.03.2019

pregnancy remains a cause of natural morbidity & infrequent mortality. High index of suspicious of ectopic pregnancy is to be followed up by Transvaginal ultrasound imaging and serial assay of serum  $\beta$  HCG for diagnostic accuracy which may be confirmed by laparoscopy [4,5,6].

The surge of ectopic pregnancies has decreased over the last ten years in spite of that over the past decade its rate has dramatically increased. The incidence of EP with contraception is decreasing in present days while the incidence of EP without contraception is increasing in contrast [4]. Worldwide the estimated prevalence of ectopic pregnancy is 1-2%. There has been fourfold increase in the incidence over the couple of decades, whereas the mortality has been reduced to nearly 80%. EP is an important cause of maternal mortality in addition to infertility, till date. Ectopic pregnancy still accounts for 4-10% of pregnancy related deaths along with the complications associated with the increased demand of blood transfusion [7]. Nearly 10-15% of maternal deaths in 1<sup>st</sup> trimester are attributed to ectopic pregnancy globally [8]. One out of every three cases may die at home in spite of prior consultation with obstetricians attributed to various clinical complications [6]. The prime objectives of the present study were to understand the epidemiology, important risk factors as well as the mode of treatment of EP cases.

### Material and Methods

A Retrospective study was conducted in the Gynaecology and Obstetrics (G & O) ward of the hospital from July 2006 to May 2010. Two researchers of this study were from same unit of G & O department of the study hospital. The study protocol was approved by the Institute's Ethics Committee and informed consent was taken from all of the participants. Their admission day each week was chosen as the day of data collection. Patients brought in the ward with symptoms of ectopic were taken into notice of researchers of the concerned department. All the cases diagnosed intra operatively as ectopic pregnancy (EP) were considered as final study population and included in the study. After the patient became stable, history taken post-operatively as per pre designed and semi structured proforma. Any patient, who died in the operation theatre or prior to giving interview were excluded from the study.

There is no potential risk and benefits to women but help for better clinical practice and statistical overview to clinical practitioners. For the study

case histories of ectopic pregnancy patients were studied and recorded data reviewed. The case notes were found diligent in regards to preoperative and clinical examination, operative findings and post operative care.

### Statistical analysis

The data was coded and entered into Microsoft Excel spreadsheet. Analysis was done using SPSS version 15 (SPSS Inc. Chicago, IL, USA) Windows software program. The variables were assessed for normality using the Kolmogorov-Smirnov test. Descriptive statistics were calculated.

### Results

Out of 103 women, 45 (69%) from urban area, 14 (13.59%) from rural area and 44 (42.72%) data was not available. Out of 104 women, 46 (44.66%) in 19-25 age group, 31 (30.1%) in 26-30 years age group and 20 (42%) in 31-35 years group and 6 (5.83%) in > 36 years age group, 1 (0.97%) women was unmarried and had ectopic pregnancy.

Annual incidence rate of ectopic pregnancy in our institute (April - 2007 to March - 2008) is 0.2%, (April 2008 to March 2009) is 0.3% and (April - 2008 to March - 2010) is 0.33% including all live birth, still born, MTR, spontaneous obstata. Total 104 ectopioc pregnancy against total delivery + MTP + abortion is 30,115.

Out of 103 women 11 (10.68%) women tested for VDRL and reported negative and 7 (80%) women tested for HIV and reported negative. One women (0.97%) had multiple risk factors for ectopioic like 2<sup>nd</sup> Marriage, previous H/o Lap. TL, H/o recanalization, H/o previous ectopic with salpingectomy.

Out of 103 women, 2 (1.94%) were unconscious, 4 (3.88%) are semiconscious and 98 (95.15%) are conscious. Out of 103 women, 1-3 pint blood transfusion needed in 48 (46.60%) and  $\geq$  4 pint blood needed in 8(7.7%) and 47 (45.63%) women needed transfusion. Out of 103 women 8 (7.77%) are severely anemic. 8 days post operatively 2 (1.94%) had wound gap and resuturingdone.

Per operatively 4 women (3.88%) had omental adhesions, 3 (2.91%) had intestinal adhesion and 2 (1.94%) had tuboperional adhesions and 1 (0.897%) had chocalate cyst. Paracentesis 2 (1.94%) cases and culdocentesis in 1 (0.97%) noted. Insurance amount paid for failure of Lap. was given to 1 (0.97%) women. 12 women (11.65%)

had H/o infertility, 5 (4.85%) had diagnostic scopy, 2 (1.94%) had ovulation induction and 4.85% had taken treatment.

**Table 1:** Risk Factors among Study Participants

|                                | No. | %      |
|--------------------------------|-----|--------|
| <b>(A) High Risk</b>           |     |        |
| • Tubal surgery recanalization | 2   | 1.94%  |
| • P/H of sterilization         | 18  | 17.48% |
| • Previous H/o of ectopic      | 4   | 3.88%  |
| • IUCD use                     | 11  | 10.68% |
| • Documented tubal pathology   | 0   | 0      |
| <b>(B) Moderate Risk</b>       |     |        |
| • Infertility                  | 12  | 11.65% |
| • Previous genital infection   | NA  |        |
| • Multiple sexual partner      | 2   | 1.94%  |
| • Previous pelvic Sx           | 7   | 6.8%   |
| • Previous abdominal Sx        | 7   | 6.8%   |
| • Cigarette Smoking            | NA  |        |
| • Vaginal donching             | NA  |        |
| • Early age of intercourse     |     |        |
| o < 20 years                   | 10  | 9.7%   |
| o 21-42 years                  | 11  | 11.68% |
| o >23 years                    | 25  | 24.27% |

**Table 2:** Clinical Presentation

| Symptoms                     | No. | %      |
|------------------------------|-----|--------|
| Abdominal pain               | 91  | 88.35% |
| Missed period                | 83  | 80.58% |
| Vaginal bleeding or spotting | 57  | 55.34% |
| Pregnancy like symptoms      | 90  | 87.38% |
| Fainting attacks             | 10  | 70.00% |
| Signs                        | No. | %      |
| Adrenal tenderness           | 95  | 92.3%  |
| Abdominal tenderness         | 80  | 77.6%  |
| Adrenal mars                 | 36  | 31.9%  |
| Cervical motion tenderness   | 3   | 9.1%   |
| Fever                        | 0   | 0      |

**Table 3:** Site of Ectopic Selected For Surgical Management

| Site         | No. (R)     | No. (UR)    |
|--------------|-------------|-------------|
| Ampullary    | 50 (48.54%) | 18 (17.48%) |
| Ischemic     | 5 (4.85%)   | 3 (2.91%)   |
| Infundibular | 9 (8.74%)   | 3 (2.91%)   |
| Total        | 63 (61.17%) | 24 (23.30%) |

*Others*

|    |   |                                |
|----|---|--------------------------------|
| 4  | - | Tubal abortion                 |
| 4  | - | Medical management             |
| 5  | - | Ovarian pregnancy              |
| 3  | - | Operative laparoscopic surgery |
| 16 | - | Total                          |

**Table 4:** Management Outcomes in Case of Ectopic Pregnancy

|                              | No. | Percentage |
|------------------------------|-----|------------|
| Total tubal ectopic          | 98  | 95.15%     |
| Total ovarian pregnancy      | 5   | 4.85%      |
| Scopy followed by laparotomy | 37  | 35.92%     |
| Ectopic in Rt tube           | 53  | 51.46%     |
| Ectopic in Lt tube           | 32  | 31.07%     |

**Surgical**

|   | No. | Percentage |
|---|-----|------------|
| Complete salpingectomy                    | 60  | 58.2%      |
| Partial salpingectomy                     | 24  | 23.3%      |
| Salpingo-oophorectomy (Ovarian pregnancy) | 1   | 0.97%      |

**Conservative (Medical + Surgical)**

|                           | No. | Percentage |
|---------------------------|-----|------------|
| Medical Treatment         | 4   | 3.85%      |
| Laparoscopic Surgery      | 3   | 3.88%      |
| Open laparoscopic Surgery | 2   | 1.92%      |
| Ovarian pregnancy         | 4   | 3.84%      |
| tubal abortion            | 4   | 3.85%      |
| Salpingostomy             | 1   | 0.96%      |

**Table 5:** Confirm Clinical Diagnosis By Various Diagnosis Modalities

|                         | No. | Percentage |
|-------------------------|-----|------------|
| P/V + UPT + TVS         | 37  | 35.9%      |
| P/V + UPT + Scopy       | 13  | 12.62%     |
| P/V + UPT + USG + Scopy | 25  | 24.27%     |
| P/V + UPT               | 17  | 16.5%      |
| β HCG                   | 4   | 3.8%       |
| β HCG + USG             | 3   | 2.9%       |
| β HCG + Scopy           | 1   | 0.97%      |
| β HCG + Scopy + USG     | 3   | 2.91%      |

(UPT- Urine pregnancy test, TVS - Trans vaginal sonography, USG - Ultrasonography)

**Table 6:** Number of Women Affecting Ectopic Pregnancy and Gravida / Para / Abortion Status

|   |                                   |
|---|-----------------------------------|
| 1 | 33 (32.04%) patients with G1P0A0. |
| 2 | 14 (13.50%) patients with G2P1A0. |
| 3 | 25 (24.27%) patients with G3P2A0. |
| 4 | 14 (13.50%) patients with G4P3A0. |

**Discussion**

The incidence of ectopic pregnancy has increased since the last 20 years. Majority of woman (67.54%) in our study group belonged to the age group of 20-30 years, which is close to the studies done by Samiya Multi, et al. (75.4%) Panchal D, et al. (71.66%) and Rashmi [9,10]. A Gaddagi, et al. (70.2%) most

of the women in India marry at an early age and completes their family at an early age [11]. This age corresponds to the age of peak sexual activity and reproduction.

In our study from 103 patients 18 patients (17.48%) had past history of sterilization and 11 patients (10.68%) had History of IUCD use were found as high risk factors for ectopic pregnancy. In moderate risk factors 12 (11.65%) patients had infertility and 7 (6.78%) patients had previous pelvic surgery and 7 (6.8%) had previous abdominal surgeries and 2 (1.94%) patients had multiple sexual partners. This is correlating with the study done by Bhavna, et al. 22.7% of the cases with ectopic pregnancy [12]. Also 25 patients (24.23%) had early age at first intercourse (23.25%) followed by 10 (9.7%) and 11 (11.68%) patients with age < 20 years and 21-22 years.

In our study out of 103 patients common symptoms of the patient with ectopic are: abdominal pain, missed period, pregnancy like symptoms, vaginal spotting and fainting attacks were noted on decreasing order of frequency and amongst the signs adnexal tenderness, abdominal tenderness, adnexal mass and cervical movement tenderness were noted in decreasing order of frequency. In Porwal Sanjay et al study, 87.5% reported with pain abdomen, bleeding per vagina encountered in 67.5% and 90% of case had history of amenorrhea ranging from 6 weeks to 4 months. These features help in early diagnosis of ectopic pregnancies. In our study of 103 patients who were selected for surgical management. Ampullary echopic cases are higher in rate for the diagnosis of ectopic pregnancy various diagnostic modalities were used in various combinations or single form like clinical examination (P/V), UPT, TVS, diagnostic scopy, Lab Ix ( $\beta$ HCG). In our study more patients had undergone complete salpingectomy: 60 (58%) and partial salpingectomy in 24 pts (24.33%). Medical management in 4, laparoscopic in 3, Open laparoscopic surgery on 2 pts, 4 patients of ovarian pregnancy, 4 of tubal abortion. There is no correlation between the occurrence of ectopic pregnancy and parity and also no correlation between ectopic and years since tubal ligation operation done.

## Conclusion

In our study, there is higher chances of occurrence of ectopic pregnancy in case of Lap TL (11 cases) abdominal TL (7 cases) 17.48% and with past H/o Cu-T usage are 11 cases (10.68%). More mode of treatment was salpingectomy. Total mortality 1 case (0.97%) occurred during the study ruptured due to of ectopic.

## References

1. Airede LR, Ekele BA.. Ectopic Pregnancy in Sokoto, Northern Nigeria. *Malawi Medical Journal*. 2006; 17(1):14-16.
2. Grimes DA.. The Morbidity and Mortality of Pregnancy: Still Risky Business. *American Journal of Obstetrics and Gynaecology*. 1994;170:1489-94.
3. Okunlola MA, Adesina OA, Adekunle AO. Repeat Ipsilateral Ectopic Gestation: A Series of Three Cases. *African Journal of Medicine and Medical Science*. 2006;35:173- 5.
4. Mahhoob U, Masher SH. Management of ectopic pregnancy, a two-year study. *I Ayub Meb Coll Abbotthad*. 2006;18(4):34-7.
5. Cumming FG, Leveno, Bloon St, Hauth JC, Rouse DJ, Spong CY. Ectopic pregnancy; In *Williams obstetrics, 23<sup>rd</sup> United States of America MC Graw Hills Publishing*. 2010:238-54.
6. Karaer A, Avsar FA, Batioglu S. Risk Factors for ectopic pregnancy a case- control study. *Aust NZ Obstet Gynaecol*. 2006;46:521-7.
7. Turner C, Horner P. *British Fertility Society Guidelines for practice*. *Hum Fertil (Camb)*. 2010; 13:115-25.
8. Barnhart KT, *Clinical practice, Ectopic pregnancy*. *N Engl J Med*. 2009;361:379-387.
9. Shagufta SM, Samina M, REyaz AR, Wasiqa K. Ectopic pregnancy; an anlysis of 114 cases. *JK-practitioner*. 2012;17(4):20-3.
10. Panchal D, Vasihanav G, Solanki K. Study of Management inpatient with Ectopic pregnancy. *National journal of Integrated Research in Medicine*. 2011;2(3):91-4.
11. Gaddagi RA, Chandrashekbar AP. A Clinical Study of Ectopic pregnancy, *Journal of clinical and Diagnostis Research*. 2012;6:867-9.
12. Gupta BK, Pathania BK, Jindal M, Vohra R, Ahmed M. Risk Factors For Ectopic Pregnancy; A case Control study in Tertiary care Centre, *Journal of Dental and Medical Sciences*. 2014;13(3):23-7.