

## ORIGINAL ARTICLE

# ECTOPIC PREGNANCY – A 3 YEAR ANALYSIS OF DIFFERENT PRESENTATIONS AT TERTIARY CARE HOSPITALS OF KARACHI

Samina Kemal\*, Rubina Hussain & Shama Chaudhry

Department of Obstetrics and Gynaecology, Ziauddin University, Karachi, Pakistan.

## ABSTRACT

**Background:** Ectopic pregnancy is a global problem and is the most common life-threatening emergency in early pregnancy leading to significant morbidity and fetal loss. It occurs in variable presentations. The main objective is to study the prevalence, risk factors and management of cases of ectopic pregnancies at tertiary care hospitals over a three year time period.

**Methods:** This is a retrospective study of cases of ectopic gestations managed in tertiary care Hospital Karachi from July 2013 to July 2016. Information was taken from case notes, theater and labor ward registers, and the cases what we managed.

**Results:** During the study period, we admitted total number of 3113 gynecology cases from 2013 to 2016 out of which 76 pregnancies turned out to be ectopic pregnancies with different presentations. Majority of these presented at the age group of 20-30 years and found more in primigravida. History of infertility was found to be the highest risk factor and tubal pregnancy remained the most common site of ectopic pregnancy.

**Conclusion:** Ectopic pregnancy is a major challenge in gynecological practice and was found more in primigravida. Most of the cases usually present late that makes the tubal conservation treatment inapplicable. Use of modern diagnostic techniques by the clinicians will assist in early diagnosis and treatment prior to tubal rupture which will ultimately lead to reduction in maternal morbidity and mortality associated with the condition

**KEY WORDS:** Ectopic pregnancy, tubal pregnancy, mortality, B- HCG

## INTRODUCTION

Ectopic pregnancy is one in which the fertilized egg becomes implanted at sites other than normal uterine cavity that are not conducive to further growth and development. It is the most common life-threatening emergency in early pregnancy. It results in significant morbidity and leads to fetal loss. Other than that, it is also associated with repeat ectopic gestation and impairment of subsequent fertility<sup>1</sup>. It is getting a greater importance because of its increasing incidence and its impact on women fertility. The rate of ectopic pregnancy is 11 per 1000 pregnancies with maternal mortality of 0.2 per 1000 estimated ectopic pregnancies<sup>2</sup>. Incidence varies from country to country and within the same geographical region depending on risk factors in the population concerned. It is a global problem that has risen in incidence during the last 30 years in

the whole world<sup>2</sup>. Ectopic pregnancy in our environment is very peculiar as 80% of patients approach late with rupture as compared globally<sup>3,4</sup>. Therefore in managing ectopic pregnancy there is a need for high index of suspicion<sup>5</sup>. As ectopic pregnancy has variable presentations from asymptomatic to life-threatening condition, the aim of the study was to determine the clinical profile of patients presenting with ectopic pregnancy and to determine risk factors, to make recommendations on interventions to reduce the incidence of this life threatening condition.

## METHODS

This study includes an analysis of different cases of ectopic pregnancies admitted in tertiary care Hospitals in Karachi over a period of 3 years from July 2013 to July 2016 after obtaining ethical com-

**Corresponding Author: Samina Kemal**

mittee clearance from the hospital authorities. Source of data included all women in reproductive age group (20-40) with an ectopic pregnancy. Proformas were filled with the variables which included age, parity, marital status, risk factors, and history of D&C, PID, Pelvic surgery, previous ectopic pregnancy, subfertility and presenting symptoms. Along with these vital parameters, abdominal and bimanual examination was noted. Diagnosis was made with the help of serum B-HCG, ultrasonography and/or laparoscopy. Findings on exploration were recorded like site of ectopic pregnancy and amount of blood loss. The data was analyzed, calculated and presented in tables.

**INCLUSION CRITERIA:** The women who were diagnosed as ectopic pregnancy who were in the reproductive age group (20-40) years,

**EXCLUSION CRITERIA:** None

## RESULTS

In the present study conducted over a period of 3 years the total gynecology admissions were 3113 and the total number of ectopic pregnancies were 76. This gives us a frequency ectopic pregnancy of 2.4% of total deliveries. In the study, 76.31% of patients belonged to age group of 20 to 30 years (Table 1).

**Table 1: Age-wise Distribution of Ectopic Pregnancy**

AGE GROUP	NO. OF CASES (%)
20-25	25 (32.89%)
26-30	33(43.42%)
31-35	15(19.73%)
36-40	3(3.94%)

The incidence of ectopic pregnancy was highest in primigravidae (38.15%) and decreased with increase parity (Table 2).

**Table 2: Parity wise Distribution of Ectopic Pregnancy**

PARITY	NO. OF CASES (%)
0	29(38.15%)
1	16(21%)
2	15(19.73%)
3	10(13.15%)
4	6(7.89%)

On the basis of our study, 40 women (52.63%) were identified with a previous history of infertility and 18.42% have had a history of D&C previously. 15.78% of the women presented with the previous history of PID and 13.15 % presented with the previous history of ectopic pregnancy. None of the patient presented to us with the history of pelvic surgery. (Table 3)

**Table 3: Distribution of Cases on the Basis of Risk Factor**

RISK FACTORS	NO. OF CASES (%)
H/O Infertility	40(52.63%)
H/O D&C	14(18.42%)
H/O PID	12(15.78%)
H/O Previous Ectopic Pregnancy	10(13.15%)
H/O Pelvic Surgery	None of the risk factors

During the period under study, tubal pregnancy was found to be in 89.47% women where 69.73% were ruptured and 19.73% were not ruptured. 3.94% presented with cornual pregnancy and 2.63% pregnancies in the rudimentary horn while the remaining 1.31% in the cervix and 1.31 % in ovary. All these were managed surgically being the mainstay of the treatment (Table 4). During our study, we witnessed an 8-week alive pregnancy in cornua of uterus, where feticide was done by KCl via ultrasound-guided technique in order to conserve the tube.

**Table 4: Site and Acuity of Ectopic Pregnancy**

EVENT	NO. OF CASES (%)
Tubal Pregnancy	68(89.47%)
Ruptured Tubal	53(69.73%)
Unruptured Tubal	15(19.73%)
Cornal Pregnancy	3(3.94%)
Rudimentary Horn	2(2.63%)
Cervical Pregnancy	1(1.31%)
Ovarian Pregnancy	1(1.31%)
Heterotrophic Pregnancy	1(1.31%)

## DISCUSSION

Ectopic pregnancy, if ruptured is a devastating gynecological catastrophe. Gynecological admissions (n=3113) were analyzed over 3 years. Incidence of ectopic pregnancy has been increasing worldwide with a fourfold increase in its incidence from 4.5 to 16.18 per 1000 pregnancies or 1 in 250 pregnancies. Most common age group involved was 20-25years for ectopic pregnancy as reported by various studies<sup>7-8</sup>. Multiple lines of evidence suggest Udigwe et al.2010<sup>8</sup>, Etuknwa et al.2012<sup>9</sup> and Panti A et al.2012<sup>10</sup> reported that majority of cases occurred in 26-30 years of age on the contrary S.Y. Chew et al.1979<sup>11</sup> observed that maximum cases of ectopic pregnancy occurred commonly over the age of 30. In our study, tubal pregnancy (89.47%) was the commonest ectopic pregnancy as mentioned on other studies.<sup>14-17</sup>The current incidence of ectopic pregnancy is difficult to estimate from the available data due to increased inpatient hospital treatment of ectopic pregnancy<sup>18</sup>. It is more common in the first and second pregnancies. It is not surprising as this may be explainable by the fact that major risk factors of previous miscarriages precede the ectopic preg-

nancy. Most of the time there is no predisposing factor leading to ectopic pregnancy remains unidentified because investigations to do so are not available. About 69.7% of the patients present with ruptured ectopic pregnancy with none of them diagnosed before the appearance of symptoms. This is similar to the findings from the developing countries where 70-95% of cases are ruptured at presentation. The treatment options in ectopic pregnancy are:

- Surgical Treatment
- Medical Treatment
- Expectant Management
- Surgically administered medical treatment

In developing countries like Nigeria, where the majority of patients are presented after rupture, emergency surgical interventions remain the mainstay of treatment<sup>18</sup>. Newer techniques especially recent advances in laparoscopic surgery have brought in an era of conservative surgical management. Current diagnostic procedures in developed countries such as transvaginal sonography, laparoscopy and serum B HCG assay are existent in our center.

### CONCLUSION

In conclusion, ectopic pregnancy still remains a major gynecological problem associated with appreciable mortality and morbidity. A high index of suspicion and use of modern diagnostic techniques will assist in early diagnosis obviating the need for radical treatment. Our study shows how common is its incidence with such variable presentations. Poverty, ignorance, late presentation, non-availability of modern diagnostic tools is a bane of insignificant improvement in detection and prompt treatment of ectopic pregnancy in developing nations. Prevention should be aimed. Education intended to improve knowledge on family planning methods would help in reducing the incidence of ectopic pregnancy by reducing the prevalence of PID and unwanted pregnancies. Early transvaginal ultrasound should be offered to all women at early trimester for early diagnosis and possible medical treatment.

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