

Incidence and Presentation of Ectopic Pregnancy

Incidence of Ectopic Pregnancy

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ABSTRACT

Objective: To determine the incidence and presentation of ectopic pregnancy presented at Gynecology Unit 1, Civil Hospital Quetta.

Study Design: Descriptive study

Place and Duration of Study: This study was conducted at the at the Department of Obstetrics and Gynecology, Civil Hospital Quetta for a period of one year from January, 2019 to December, 2019.

Materials and Methods: A total of 24 patients with ectopic pregnancy were reported during this time period. All 24 patients were informed and included in the study with their willful consent to participate.

Results: Patients had a mean standard deviation age of 29 ± 5.12 years. The youngest patient in the group being of age 22, and the eldest included was of age 38. Out of these 24 patients, 23 (95.8%) were ruptured ectopic while one (4.2%) was unruptured. 10 patients (41.7%) had right sided ectopic pregnancy and 14 patients (58.3%) had left sided ectopic pregnancy. All 24 patients were presented with vaginal bleeding, pelvic pain, abdominal pain, and amenorrhea. Out of these, 14 were also presented with shock.

Conclusion: Considering the risk factors and clinical presentation, early diagnosis of ectopic pregnancy can help reduce the mortality and morbidity rate.

Key Words: Incidence, Ectopic Pregnancy

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INTRODUCTION

Ectopic pregnancy is a gynecological emergency defined as the implant of a fertilized ovum besides the typical uterine cavity⁽¹⁾. While it is common for such pregnancies to occur in the fallopian tube, they may also be observed in the cervix, ovaries or the abdomen. A study suggests that 1-2% of all pregnancies may end up in this complication of ectopic pregnancy, and contributes greatly to the morbidity of the patient⁽²⁾. It claims the life of about 10-15 women each year and no appreciable decrease in the morbidity or mortality rate has been observed in the past few decades. Although most ectopic pregnancies are tubal, about 10% of ectopic pregnancies may be non-tubal. A study states that non-tubal ectopic pregnancies result in higher morbidity and mortality rate as a result of their late presentation and challenging diagnosis⁽³⁾.

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This complication is more common in the developing countries. Not only does an ectopic pregnancy threaten the life of a woman, its late and ineffective treatment may also result in having an adverse impact of the fertility by damaging vital reproductive organs such as the ovaries, fallopian tube or even the uterus⁽⁴⁾.

Various factors have contributed to the incidence and prevalence of ectopic pregnancies over the years. A study suggests that pelvic inflammatory diseases are the most common cause of ectopic pregnancy however; various other factors also contribute to its occurrence⁽⁵⁾. Pregnant women who present themselves in the emergency with complaints of vaginal bleeding and/or abdominal/pelvic ache are often examined as suspects of ectopic pregnancy⁽⁶⁾. A pelvic ultrasound is usually required to evaluate the patient's situation. With a sound knowledge of laboratory tests, sonographic procedures and imaging characteristics related to ectopic pregnancy, an ectopic pregnancy could be identified with ease⁽⁷⁾.

MATERIALS AND METHODS

This study was conducted at the Department of Obstetrics and Gynecology, Civil Hospital Quetta for a period of one year from January, 2019 to December, 2019. A total of 24 patients with ectopic pregnancy were reported during this time period. All 24 patients were informed and included in the study with their willful consent to participate.

RESULTS

Patients had a mean standard deviation age of 29 ± 5.12 years. The youngest patient in the group being of age 22, and the eldest included was of age 38. Out of these 24 patients, 23 (95.8%) were ruptured ectopic while one (4.2%) was unruptured. 10 patients (41.7%) had right sided ectopic pregnancy and 14 patients (58.3%) had left sided ectopic pregnancy. All 24 patients were presented with vaginal bleeding, pelvic pain, abdominal pain, and amenorrhea. Out of these, 14 were also presented with shock.

Table No.1: Patients detail regarding Clinical presentation

Clinical Presentation	Number of patients (percentage)
Vaginal bleeding/brown discharge	24 (100%)
Abdominal pain	24(100%)
Pelvic pain	24 (100%)
Amenorrhea	24 (100%)
Shock	14 (58.3%)

Table No.2: Ectopic Pregnancies detail

Ruptured ectopic pregnancies	95.8%
Unruptured ectopic pregnancies	4.2%
Left-sided ectopic pregnancies	58.3%
Right-sided ectopic pregnancies	41.7%

DISCUSSION

Ectopic pregnancy is one of the leading causes of morbidity and mortality in women particularly during their first trimester of pregnancy. Mortality rate for EP is about ten times greater than that of vaginal birth and five times greater than that of induced abortion. Not only does it pose a serious threat to the woman's life, it also highly reduced the chances of future pregnancies and takes an enormous toll on the mother's mental and physical health^{(8) (9)}. It is important to identify the risk factors associated with ectopic pregnancy as well as know their presentation and appropriate management to ensure a reduced mortality and morbidity rate. An extensive study conducted in the United States shows that the incidence of ectopic pregnancy in the US has increased over the years, where the incidence was 11.0% in 2006 and rose to 13.7 in 2013 in every 1000 pregnancies. Women of all ages were concluded to be prone to this increase in incidence⁽¹⁰⁾. A Nigerian study suggests that incidence of ectopic pregnancy was 8.3% from a total of 2067 gynecological admissions. The mean age of females in this study was 29 ± 5 years, similar to that of our study here. The percentage for ruptured pregnancies was observed to be 98.3%, comparable to that of our 95.8% incidence⁽¹¹⁾. Another study reports that incidence of ectopic pregnancy was 12.5% in United Kingdom per 1000 deliveries, 3.12% in India and 0.6% in Pakistan⁽¹²⁾.

Various risk factors contribute to the prevalence of ectopic pregnancy in women. Majority of the literature reviewed for this study in regard to risk factors suggested that pelvic inflammatory disease accounts as a major risk factor of ectopic pregnancy^(1, 2, 4, 5, 13, 14). Pelvic inflammatory diseases cause scarring, this in turn turns out to interfere with the capture and movement of the egg. It also interferes with the movement of the spermatozoa, increasing the chances of an ectopic pregnancy. It also contributes to the delayed diagnosis of ectopic pregnancy as well as delayed treatment for acute pelvic infection⁽¹⁴⁾.

Another study suggests a connection between ectopic pregnancy and single women. It reasons that multiple sex partners contribute to the prevalence of STDs and PIDs, which in turn are strongly related to ectopic pregnancies. Age was also stated to be a risk factor in the study as it suggests that early debut of intercourse (age 15-19) raises the probabilities of an ectopic pregnancy. The age group 25-29 was less prone to ectopic pregnancy by a percentage of nearly 65%⁽¹⁵⁾.

Assisted reproductive technology is gaining popularity as a treatment for infertility. However, this comes with an increased frequency of ectopic pregnancies. Tubal inflammation is one of the most prominent risk factors of ectopic pregnancy. Since most patients that seek IVF treatment have tubal infertility, the rate of ectopic pregnancy in patients seeking assisted reproductive technology is higher than theoretically expected⁽¹⁶⁾. Another study suggests that treatment for infertility accounts for 31.5% of ectopic pregnancies, making it a major risk factor⁽¹⁸⁾.

Smoking is yet another risk factor strongly related with ectopic pregnancy. An extensive study including 41,440 pregnancies concluded that currently smoking women had a 73% higher chance of having an ectopic pregnancy as compared to a woman who had never smoked. An ex-smoker had a lower chance than a current smoker did however; they were still at a solid 22% higher risk of ectopic pregnancy. A clear relation between duration of smoking was not observed, both a light and relatively new smoker and a smoker of 15+ years were at a high risk of EP⁽¹⁷⁾.

It is also found that there is a strong correlation between previous tubal surgical procedures and ectopic pregnancies. A tubal damage can increase the chances of ectopic pregnancy to up to three times. Endometriosis is considered as another prominent risk factor of ectopic pregnancy and is said to increase the incidence of EP in women. Previous history of ectopic pregnancy also puts the patient at a higher risk of further ectopic pregnancies in the future⁽²⁾.

Clinical presentation helps categories a patient for a certain complication and so it is important to discuss the clinical presentation for ectopic pregnancy for timely diagnosis. A study suggests that in addition to the potential risk factors, presentation with amenorrhea, vaginal bleeding and abdominal pain were observed in 27.7% of the cases. Since this indication is rather low, the study suggested early and regular ultrasound

inspection for timely diagnosis¹⁸. A study by Cozlea et al found out that amenorrhea was observed in all patients, 98.75% of which was observed before the 14th week of gestation while 1.25% was observed after the 14th week. 80% of the patients came in with vaginal bleeding while it was absent in 20% of the patients. About 60% ectopic pregnancies in this study were right sided as opposed to our study of greater incidence of left sided EP⁽¹⁹⁾.

CONCLUSION

Ectopic pregnancy is one of highest contributors to maternal and fetal morbidity and mortality rate. Our study included 24 patients of ectopic pregnancy, most of which were presented with vaginal bleeding, amenorrhea, abdominal pain, pelvic pain and some were in shock. Most of them were left sided ectopic pregnancies and all except one were ruptured. Considering the risk factors and clinical presentation, early diagnosis of ectopic pregnancy can help reduce the mortality and morbidity rate.

Author's Contribution:

Concept & Design of Study: Nasreen Sultana Kakar
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Conflict of Interest: The study has no conflict of interest to declare by any author.

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