

Risk Factors and Maternal Outcome in Ectopic Pregnancy

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Abstract

Background: Ectopic pregnancy is defined as the implantation of the blastocyst anywhere other than the endometrial lining of the uterine cavity [1]. Overall incidence is 1 - 2% among general population [2]. Most common location is the fallopian tubes (ampullary, isthmo-ampullary, isthmal and fimbrial) cornual, cervical, ovary and scar ectopic, heterotopic pregnancy. The classical triad of symptoms include abdominal pain abdomen, bleeding per vagina, amenorrhea, positive UPT test. Early diagnosis and treatment of this condition over the past two decades has allowed a definitive medical management of unruptured ectopic pregnancies over radical procedures [3].

Aims and Objectives: To study the risk factors and clinical presentation of ectopic pregnancies.

Methods: Present study is an observational study conducted on 100 women of age 18 to 45 years presenting with ectopic pregnancy in department of Obstetrics and Gynaecology at ESIC-MC and PGIMSR Hospital, Bangalore over a period of 36 months from January 2018 - December 2020.

Results: In present study ruptured ectopic pregnancy is commonly seen in women in reproductive age group and mostly in low socioeconomic status 74%. They most commonly presented with history of amenorrhea, pain abdomen and bleeding per vagina. The most common risk factors were previous ectopic, history of tubal surgeries, history of LSCS and PID.

Conclusion: Identifying the risk factors for ectopic pregnancies help in early diagnosis and thus early management decreasing the morbidity.

Keywords: Ectopic Pregnancy; Reproductive Age; Tubal Surgery; LSCS; Pelvic Inflammatory Disease

Introduction

Ectopic pregnancy is defined as the implantation of the blastocyst anywhere other than the endometrial lining of the uterine cavity [1]. Overall incidence is 1 - 2% among general population [2]. Most common location is the fallopian tubes (ampullary, isthmo-ampullary, isthmal and fimbrial) cornual, cervical, ovary and scar ectopic, heterotopic pregnancy. Most risk factors are associated with prior damage to fallopian tubes like PID, previous pelvic surgeries, assisted reproductive methods. The classical triad of symptoms include abdominal pain, bleeding per vaginum, amenorrhea, positive UPT test. Early diagnosis and treatment of this condition over the past two decades has allowed a definitive medical management of unruptured ectopic pregnancies over radical procedures [3].

Aims and Objectives

1. To study the risk factors of ectopic pregnancy.
2. To study the clinical presentation of ectopic pregnancy.

Materials and Methods

Source of data and materials

An observational study will be conducted on 100 women of age 18 to 45 years with ectopic pregnancy in department of Obstetrics and Gynaecology at ESIC-MC and PGIMS Hospital, Bangalore from January 2018 - December 2020.

Inclusion criteria:

1. Women of age 18 to 45 years presenting with acute pelvic pain (onset of pain with duration less than 3 months).
2. Ectopic pregnancy.
3. Women who are willing to participate in the study.

Exclusion criteria:

1. Women who are not willing to participate in the study.
2. Acute pelvic pain related to normal pregnancy and post partum complications (abortion and post partum endometritis).
3. Abortion is defined as termination of pregnancy before fetal viability.

Method of collection of data

Patients who were diagnosed of ectopic pregnancy in gynecological OPD are further assessed regarding the demographic data, clinical signs and symptoms, risk factors of ectopic pregnancies, diagnostic tools used, treatment, mortality and morbidity were obtained. The categorical type data like age, parity, socioeconomic status, risk factors like previous history of ectopic pregnancy, LSCS, tubectomy, abortions, pelvic inflammatory diseases, infertility treatment, were analysed in terms of frequencies and percentages.

Duration of the study: 36 months (January 2018 - December 2020).

Type of study: Observational Study.

Results

Age	Percentage
Less than 20 years	14
20 - 30 years	20
30 - 40 years	40
More than 40 years	26

Table 1

In our study 14% belong to less than 14 years, 20% belong to 20 - 30 years age, 40% belong to 30 - 40 years age, 26% belong to more than 40 years age.

Socioeconomic status	Percentage
Low	74%
High	26%

Table 2

In our study 74% of patients belong to low socio- economic status and 26% belong to high socioeconomic status.

Risk factors	Percentage
History of Ectopic pregnancy	14%
a) Salpingectomy	4
b) Salpingotomy	3
c) Medical management	7
Previous LSCS	18%
Previous Tubectomy	14%
Previous Abortion	14%
Pelvic inflammatory disease	28%
History of infertility	10%
IUCD insertion	2%

Table 3

In our study previous history of ectopic was seen in 14%, among them 4 had history of salpingectomy, 7 had history of medical management and 3 had history of salpingotomy, previous history of LSCS was seen in 18%, previous history of tubectomy in 14%, previous history if abortions in 14%, PID in 28%, infertility treatment in 10% and 2% had history of IUCD insertion.

Clinical presentation	Percentage
Amenorrhea	96%
Pain abdomen	88%
Bleeding per vagina	78%
Fainting or syncope	16%
Shock	10%

Table 4

In our study the clinical presentation was 96% had history of amenorrhea, 88% had pain abdomen, 78% had bleeding per vagina, fainting and syncopal attacks in 16% and 10% presented with shock.

Discussion

In our study the incidence of ectopic pregnancy was 1.38% which was similar to study done by Musa., *et al.* [4].

In our study majority are in age group of 21 - 30 years, which is close to the studies done by Samiya Mufti., *et al.* [5] (75.4%), Panchal D., *et al.* (71.66%) and Rashmi A Gaddagi., *et al.* (70.2%).

In our study multigravidas were 76%. This correlates with the studies done by Shraddha Shetty K., *et al.* [6] (83.9%), Panchal D., *et al.* (81.66%) and Poonam., *et al.* (83.6%) probably due to previous miscarriages and infections resulting in tubal damage.

Incidence of ectopic pregnancy was more among low socioeconomic status -74% which is close to the study done by Poonam., *et al.* [7] (69.3%) which explains poor personal hygiene predisposing to PID.

In present study history of PID was present in 28% correlating with the study done by Bhavna., *et al.* [8] (22.7%). The endosalpingitis damages the mucosa and decreases ciliary beating action impairing embryo transfer. Exosalpingitis give rises to adhesions impairing the peristaltic movements.

In our study, 14% of the women had history of previous ectopic pregnancy which correlates with the studies done by Samiya Mufti., *et al.* (5.26%) and UzmaShabab., *et al.* (5%) reflecting the underlying tubal pathology which is almost always bilateral.

In our study 14% of the women with ectopic pregnancy had tubal sterilization which correlates with the studies done by Uzma Shabab., *et al.* (5%) and Shrestha., *et al.* (5%). Improper surgical technique and formation of peritubal fistulas may result in ectopic pregnancy. In postpartum period, edematous, congested and friable tube increases the chance of incomplete tubal occlusion resulting in ectopic implantation.

In our study 10% of the women with ectopic pregnancy were infertile which is correlating with the studies done by Panchal D., *et al.* (11.66%) and SamiyaMufti., *et al.* 10 (8.77%). The association between infertility, previous pelvic pain and tubal pathology is the possible explanation

Conclusion

Identifying the risk factors for ectopic pregnancies help in early diagnosis and thus early management decreasing the morbidity. Impact on the future fertility is improved by focusing on primary prevention and early diagnosis.

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