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A study on surgical emergencies of ectopic pregnancy in a teaching referral hospital

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Abstract

Objective: Ectopic pregnancy continues to be a leading cause of maternal morbidity and tubal rupture, it is still a life threatening complication with inevitable loss of pregnancy & reduced childbearing potential among women of reproductive age. The objectives of present study are to evaluate maternal obstetric related risk factors and maternal outcome.

Methods: In this Retrospective study of 55 cases of ectopic pregnancies from Government General hospital attached to KIMS College, Amalapuram a teaching & referral hospital, who underwent emergency surgical intervention were analyzed for obstetric risk factors, clinical presentation, gestational age, surgical procedures and maternal outcome. Diagnosis is done by paracentesis, culdocentesis, USG, urine and serum Beta hcg.

Results: The most common age of women was between 20-25yrs in 38.38%. Pain abdomen and bleeding PV were common symptoms in 27.27%. Most common risk factor for occurrence of ectopic pregnancy was following tubectomy. Ampullary region is the most common site. Cervical tenderness is the most common sign compared to others. In most patients Salpingectomy was performed. In few patients Total Abdominal Hysterectomy was performed. Intra operative and postoperative period of all 55 cases were uneventful.

Conclusion: This suggests that ectopic pregnancy is less suspected in these women. High degree of suspicion, timely recognition, decision making and intervention are required in obstetric ectopic emergencies to reduce maternal morbidity and mortality.

Keywords: Ectopic pregnancy, 1st trimester, bleeding PV, cervical motion tenderness, salpingectomy, haemoperitoneum

Introduction

Ectopic is derived from Greek word "ektopos", meaning out of place. Ectopic pregnancy is a complication of pregnancy in which the embryo attaches outside the uterus ^[1]. Including fallopian tubes, ovary, cervix, and rarely abdominal. Ectopic pregnancy accounts for approximately 2% of all recognized pregnancies ^[2]. One third to one half no risk factors can be identified. Risk factors include: pelvic inflammatory disease, infertility, use of an intrauterine device (IUD), previous exposure to diethylstilbestrol (DES), tubal surgery, intrauterine surgery (e.g. D&C), smoking, previous ectopic pregnancy, endometriosis, and tubal ligation ^[5, 6]. Signs and symptoms classically include abdominal pain and vaginal bleeding, but fewer than 50 percent of affected women have both of these symptoms ^[7]. The pain may be described as sharp, dull, or crampy ^[7]. Ectopic pregnancy is a common life threatening condition in pregnancy and the leading cause of pregnancy related deaths in first trimester. ⁸Ectopic pregnancies can lead to massive haemorrhage, infertility and death. Surgical treatment has long been a main stay of management for Ectopic Pregnancy. Without timely diagnosis and treatment ectopic pregnancy can become a life threatening situation. ⁹The current trend is a conservative way of management of these pregnancies be it chemotherapeutic agents or conservative surgical approaches, the ultimate goal is Tubal Conservative Procedures rather than radical surgeries ^[10, 11].

Objectives

1. To find out the Risk factors associated with ectopic pregnancy
2. To find out the relationship of Ectopic pregnancy to various factors like age group and parity.
3. To find out various symptoms and signs and its outcome in ectopic pregnancy.

Methods

In this retrospective study of 55 cases of ectopic pregnancies from Government General hospital attached to KIMS College, Amalapuram a teaching & referral hospital from June 2018 to march 2020, who underwent emergency surgical intervention were analyzed for obstetric risk factors, clinical presentation, gestational age, surgical procedures and maternal outcome after obtaining Ethical clearance from the Patients. Diagnosis is done by paracentesis, culdocentesis, USG, urine and serum Beta hcg. Data is represented in tabular columns. This study includes Clinical examination and Radiological imaging.

Inclusion criteria

Only patients with Confirmed Ectopic pregnancies were included

Exclusion criteria

Patients with normal pregnancies were excluded

Observation and Results

Table 1: Age distribution

Age	No of Cases	%
< 19 years	2	3.63
20-25 years	21	38.18
26-30 years	16	29.09
31-35 years	14	25.45
>36 years	01	1.81

In our study 21 cases (38.18%) were found in the age group of 20-25 years

Table 2: Risk Factors in relation to Ectopic pregnancy

Risk Factors	No of cases	%
Post tubectomy	23	41.81
Previous Ectopic	09	16.36
Previous Abortion	12	21.81
Tubal Recanalization	04	7.27
No Risk Factors	07	12.12

Most common risk factor for occurrence of ectopic pregnancy was following tubectomy (41.81%) in our study 12.12% had no risk factors.

Table 3: Presenting clinical symptoms

Symptoms	No. of cases	%
Pain abdomen	33	60
Bleeding P/V	15	21.27
Pain abdomen & Bleeding P/V	07	12.12

In our study 60% cases presented with pain abdomen and 12.12% presented with pain abdomen and bleeding per vagina. 21.27% of the cases presented with bleeding per vagina.

Table 4: Clinical signs in relation to Pregnancy

Signs	No of cases	%
Forniceal tenderness	20	36.36
Mass in Fornices	25	45.45
Cervical movement Tenderness	33	60

Out of 55 cases 60% of them had cervical movement tenderness, 36.36% had forniceal tenderness and 45.45% presented with an adnexal mass.

Table 5: Site of Ectopic

Site	No of cases	%
Ampulla	31	56.56
Ovary	02	3.6
Abdomen	03	5.4
Isthmic	19	34.34

In our study 58.06% Of the cases were ampullary pregnancies, 32.25% of the cases were situated in the isthmic region and 2 cases (6.45%) were abdominal pregnancies.

Table 6: Side of Ectopic

Side	No. of Cases	%
Right	34	61.81
Left	21	38.18

Out of 55 cases, 21 cases were present on left side and 34 on the right side.

Table 7: Outcome of Ectopic pregnancy

Outcome	No. of cases	%
Ruptured	35	63.63
Chronic ectopic	06	10.9
Abortion	14	25.45

Out of the 55 cases 63.63% of them were found to be ruptured ectopic pregnancies at the Time of surgery, 25.45% of the cases were tubal abortion and 10.9% of them were chronic ectopic.

Table 8: Surgical Outcome of Ectopic pregnancy

Surgery	No. of Cases	%
Salpingectomy	25	45.45
Salpingo oophorectomy	15	27.27
Partial salpingectomy	08	14.54
Hysterectomy	07	12.72

In our study the most common procedure done was salpingectomy in 45.45% of the cases, Followed by salpingo oophorectomy in 27.27% of the cases. In two cases Total abdominal Hysterectomy was performed.

Table 9: Number of blood transfusions done

Blood transfusion	No. of Cases	%
1 unit	15	27.27
2 units	31	56.36
3 units	05	9.09
No blood	04	7.27

92.72% of the cases received Blood transfusion and 7.27% of the cases were managed Without blood transfusion. Intra operative and postoperative period of all 55 cases were uneventful.

Discussion

	Prev. Study	Our study
20-30 years	Rashmi <i>et al.</i> (70.2%)	67.17%
Post Tubectomy incidence	Peterson Hb <i>et al.</i> , (33%)	41.81%
Ampulla	rose <i>et al.</i> (2002), (56.9%)	56.56%
Isthmus	rose <i>et al.</i> (2002), (39.78%)	34.34%
Ruptured Ectopic	Wills and Mohambal study (66%)	63.63%
Cervical tenderness	Tay <i>et al.</i> (2000) (63.63%)	60%
Abdomen pain	Alsuleiman S A <i>et al.</i> (98.6%)	60%
Vaginal Bleeding	Alsuleiman S A <i>et al.</i> (56.4%)	12.72%
Salpingectomy	Rashmi <i>et al.</i> (51.4%)	45.45%
Recurrent ectopic	Rose <i>et al.</i> study, 2002, (3.2%).	16.36%

In the present study 55 cases of ectopic pregnancies were studied. The incidence of ectopic pregnancy was 1 in 600, in our study. Out of the 55 cases, 67.17% were found in the age group of 20-30 years, this coincides with a study conducted by Rashmi *et al.* (70.2%)^[12]. The most common risk factor for occurrence of ectopic pregnancy in our study was Post-Tubectomy 41.81%, in a study conducted by Peterson Hb *et al.*, 33% of the pregnancies following tubal ligation of ectopic. Those who underwent electro cautery and women younger than 35 years were at higher risk. In our study 12.12% had no identifiable risk factors^[13]. In Chou *et al.* study (1987), 79.6% of the pregnancies were in the ampulla, 12.3% of them in the isthmic region. According to the study conducted by rose *et al.* (2002), 56.9% were ampullary pregnancies and 39.78% were isthmic. In our study, 56.56% of ectopic pregnancies were ampullary pregnancies followed by 34.34% of Isthmic pregnancies. According to Wills and Mohambal study 66% of them were ruptured Ectopic pregnancies; in our study 63.63% of them were ruptured ectopic pregnancies. In our study, 60% of them had cervical movement tenderness, whereas in the study conducted by Tay *et al.* (2000) it was 63.63%. In one case series of ectopic pregnancies, conducted by Alsuleiman S A *et al.* 98.6% of the patients presented with abdominal pain and 56.4% of the patients presented with Vaginal bleeding¹⁴. In the present study, 60% of them presented with pain abdomen and 27.27% presented with pain abdomen and bleeding per vagina. In our study Salpingectomy was performed in 45.45%, whereas in the study conducted by Rashmi *et al.*, it was (51.4%)^[11]. In our study, incidence of recurrent ectopic was 16.36%, according to the Rose *et al.* study, 2002, the incidence was 3.2%. This is because of a stronger tendency for ectopic pregnancy to occur first on one side and then later on the other side^[15].

Conclusion

This suggests that ectopic pregnancy is less suspected in these women. High degree of suspicion, timely recognition, decision making and intervention are required in obstetric ectopic emergencies to reduce maternal morbidity and mortality. If Laparoscopy is not available, Laparotomy with salpingectomy is best available option.

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