

A Clinical Study of Ectopic Pregnancy

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ABSTRACT

Background- Motherhood- An eternal, universal and inherent dream which every woman has. This dream may not always be pleasant and it can involve nightmares. One of this is ectopic pregnancy – a pregnancy which can be life threatening . The present study involves a study on all the cases of ectopic pregnancy who were admitted to the Cheluvamba hospital during November 2004 to May 2006.

OBJECTIVES

1. To know the age group, parity and the risk factors with respect to the ectopic pregnancy.
2. To know the clinical presentation of the ectopic pregnancy.
3. To know the outcome of the ectopic pregnancy.

Materials And Methods- A total of 37 patients who were diagnosed as ectopic pregnancy cases were analyzed between the period from November 2004 to May 2006.

All these cases were analyzed after applying the inclusion and exclusion criteria with respect to the

1. History
2. Clinical presentation
3. Investigations
4. Treatment

Results- The incidence of the ectopic pregnancy in the present study was 1:399 pregnancies . A majority of the cases were multigravidas. In most of the cases, there were no identifiable risk factors. However, they did present with pain in the abdomen, amenorrhoea and bleeding per vagina in at least 50% of the cases. Almost half (40%) were in a state of shock at admission. Ultrasound , a urine pregnancy test and culdocentesis were the investigative modalities which were used. All the cases were managed by surgical management. On laparotomy, a majority of the cases were found to be ampullary pregnancies, followed by interstitial pregnancies. The tube was ruptured in almost 80% of the cases and there was a haemoperitoneum. Almost all the patients had intraoperative and/ or postoperative blood transfusions. There was no significant post operative morbidity in these cases.

Interpretation And Conclusion- The early diagnosis of an ectopic pregnancy is one of the greatest challenges for a physician. It requires a high index of suspicion i.e to diagnose an ectopic pregnancy, one must be ectopic minded .The importance of an early diagnosis lies in the fact that the lady can be offered a conservative line of management which can definitely have a beneficial effect on her reproductive career.

Key Words: Ectopic pregnancy, Ampulla, Culdocentesis, Salpingectomy

INTRODUCTION

Ectopic pregnancy is defined as any intra or extrauterine pregnancy in which the fertilized ovum implants at an aberrant site which is inconducive to its growth and development [1].

Ectopic pregnancy is assuming greater importance because of its increasing incidence and its impact on womens fertility [2,3]. Ectopic pregnancy remains the leading cause of maternal deaths in early pregnancy [4]. With respect to the management of ectopic pregnancy, there has been tremendous technical advances. The early diagnosis and treatment of this condition over the past two decades has allowed a definitive medical management of unruptured ectopic pregnancies even before there were clinical symptoms in these high risk women [5,6].

The 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 [7,8].

METHODOLOGY

SOURCE OF THE DATA

This study was undertaken at the Cheluvamba Hospital, Mysore, between November 2004 to May 2006 after obtaining ethical committee clearance from the hospital authorities.

The source of the data included all the woman in the reproductive age group (15-44 years) who were admitted to the Cheluvamba Hospital with an ectopic pregnancy.

METHODS OF COLLECTION OF THE DATA

All the women with ectopic pregnancies (who were diagnosed after a clinical examination and investigations) were included in the study.

INCLUSION CRITERIA

The women who were diagnosed as ectopic pregnancy cases, who were in the reproductive age group of 15-44 years.

EXCLUSION CRITERIA

No exclusion criteria

RESULTS

- This study was undertaken at the Cheluvamba Hospital from November 2004 to April 2006.
- A total of 37 cases of ectopic pregnancy were diagnosed.
- The incidence of ectopic pregnancy in the present study was 1:399 pregnancies or 1:285 deliveries.
- A majority of the patients (70.2%) belonged to the 21-30 years age group.
- 27% were nulliparas, 10.8% were primiparas and the rest (62.2%) were multiparas.
- The aetiological /risk factors: 37.83% had no risk factors; 16.21% had a prior history of tubectomy; 16.21% had a history of infertility (primary or secondary); 18.91% had a history of D and C; Cu-T each; 1 case conceived while she was on OCP, but she gives a history of missed pills; and a history of previous ectopic pregnancy and appendectomy were seen in 2.7% each. A history of PID and previous LSCS were found in 8.1% of the cases each.
- A majority of the cases presented with pain in the abdomen (89.2% of cases); amenorrhoea (75.7%) and spotting (43.2%).
- Around 40.5% of the cases were brought in a state of shock.
- Tenderness on cervical movement was present in 75.7% of the cases and masses in the fornices were present in 70.3% of the cases.
- The urinary pregnancy test was positive in 97.3% of the cases and culdocentesis was positive only in 37.8% of the cases.
- Ultrasound revealed a ruptured ectopic pregnancy in 43.2% of the cases; an unruptured pregnancy in 8.1% of the cases and a heterogenous mass in 40.5% of the cases. In 83.8% of the cases, a fluid was noted in the Pouch of Douglas.
- A majority of the cases were ampullary pregnancies (69.7%). Interstitial/cornual pregnancy was seen in 15.2% of the cases and 3% of the cases were isthmal pregnancies, while 9.1% of the cases showed pregnancy in a rudimentary horn.
- 78.3% showed a ruptured ectopic pregnancy on laparotomy. Tubal abortion was seen in 4 cases and an unruptured ectopic pregnancy in 3 cases.
- 86.4% of the cases showed a haemoperitoneum on laparotomy.
- The most common procedure which was done was salpingectomy in 51.4% of the cases, followed by salpingo-oophorectomy in another 13.5% of the cases. In 5.4% of the cases (i.e. 2 cases) total abdominal hysterectomy was done. Both these cases were cornual pregnancies.

Authors	Year	Incidence
Paran Jothi	1965	1:151
Vinaya Pendse	1976	1:266
D'Mello	1988	1:214
ICMR	1990	1:250
Annamma Thomas et al.	1999	10.2:1000 lb
Rose Jophy et al.	2002	15.2:1000 lb
Present study	2005	1:399 pregnancies

[Table/Fig-1]: Comparison of incidence quoted by several authors

Findings	Tay et al. (2000)	Rose et al. (2002)	Present study
Tenderness	91%	83.9%	70.3%
Mass	-	-	16.2%
Distention	-	49.5%	35.0%
Cervical motion tenderness	54%	55.9%	75.7%
Mass in fornices	-	46.2%	70.3%

[Table/Fig-2]: Comparison of the clinical signs of abdominal examination/vaginal examination

Site	Chow et al. (1987)	Rose et al. (2002)	Present study
Ampulla	79.6%	56.9%	69.7%
Isthmus	12.3%	39.78%	3.0%
Fimbria	6.2%	-	-
Cornual/Interstitial	1.9%	1.07%	15.2%
Ovarian	-	1.07%	-
Heterotopic	-	1.07%	-
Rudimentary horn	-	-	9.1%
Broad ligament pregnancy	-	-	3.0%

[Table/Fig-3]: Comparison of the site of the ectopic pregnancies

	Wills and Mohambal	Savitha Devi	Present study
Ruptured	66%	30.77%	78.3%
Unruptured	34%	69.23%	8.1%

[Table/Fig-4]: Comparison of the condition of the tube

- Most of these cases (36) had blood transfusions intraoperatively and post-operatively.
- The postoperative period was uneventful, except 1 case which developed pulmonary oedema which was secondary to the fluid overload.

DISCUSSION INCIDENCE

The incidence of ectopic pregnancy has increased since the last 20 years. The incidence in this present study was 1:399 pregnancies or 1:285 deliveries [Table/Fig 1].

RISK FACTORS AND ECTOPIC PREGNANCY

Previous Abortions and D and C

In the current study -18.91 % In Rose Jophy et al., study - 25.8 %

PID and Ectopic Pregnancy

In the current study - 8.1 %
 In March Banks' study (1998) - 4%
 In Savitha Devi's study (2000) - 25%
 In Rose et al., study (2002) - 34.4%

HISTORY OF INFERTILITY

In the current study - 16.21 %
 In March Banks' study (1998) - 2.9%
 In Savitha Devi's study (2000) - 48.07%
 In Rose et al., study (2002) - 15.1%

In Arora et al., study (1998)	-	11.2%
In Mitra et al., study (1980)	-	55.2%

PREVIOUS ECTOPIC PREGNANCY

In the present study- 2.7% In Rose et al., study (2002) - 3.2 % This is because tubal disease is nearly always bilateral and because there is a strong tendency for ectopic pregnancy to occur first on one side and then later on the other side [9].

HOWEVER, THE MOST IMPORTANT FACT WHICH NEEDS ATTENTION IS THAT IN A MAJORITY OF THE CASES (37.83%), THERE WAS NO RECOGNIZABLE RISK FACTOR. THIS STRESSES THE FACT, THAT TO DIAGNOSE ECTOPIC PREGNANCY, WE MUST BE ECTOPIC MINDED.

CLINICAL SYMPTOMS

The classical findings of pain in the abdomen, amenorrhoea and vaginal bleeding is not seen in all the cases .

This is because the clinical picture is dependent on several factors, the most important factor being the time which is taken for a disturbance to occur in the ectopic pregnancy. The more extensive and rapid the disturbance is, the more clear is the clinical picture. On the other hand, an undisturbed unruptured ectopic pregnancy is more likely to be missed unless it is recognized by ultrasonography [10].

GENERAL PHYSICAL EXAMINATION

In the present study, most of the cases (40.5%) presented with shock as compared to those in other studies. This was because a majority of the cases (78.37%) presented with a ruptured ectopic pregnancy. Pallor was a significant finding which was seen in almost 70-80% of the cases of ectopic pregnancies. Thus, GPE gives an important clue to the diagnosis and also an idea regarding the condition of the tube [11].

CLINICAL SIGNS

RESULT

In the present study, as most of the cases were suggestive of a ruptured ectopic pregnancy, they were taken up for laparotomy and salpingo-oophorectomy / salpingectomy (67.6%).

The other procedures which were done were:

1. Milking for tubal abortion	-	5.4%
2. Rudimentary horn excision	-	8.1%

3. Cornual excision and repair - 2.7%

4. Broad ligament sac excision and salpingectomy.

5. Two cases underwent total abdominal hysterectomy with salpingo-oophorectomy. These were cases of cornual pregnancies, both of which were ruptured.

OPERATIVE FINDINGS

CONCLUSIONS

The incidence of ectopic pregnancies is on the rise, as was evident by the findings of this study. All the cases were diagnosed with a high index of clinical suspicion and the USG findings added to the diagnosis. Though the recent trend in the management of ectopic pregnancy is the use of a conservative surgical or medical line of management, radical surgery or salpingectomy was the treatment modality which was used in the present study. This was mainly because a majority (80%) of the cases were referred or they came late to the hospital after the ectopic pregnancy had ruptured. But fortunately, there has not been even a single mortality. The maternal morbidity was also significantly less .

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FINANCIAL OR OTHER COMPETING INTERESTS:

None.

Date of Submission: **Jan 18, 2012**
Date of Peer Review: **Mar 01, 2012**
Date of Acceptance: **Mar 17, 2012**
Date of Publishing: **Jun 22, 2012**