

Enigma Still Unconquered- Ectopic Pregnancy

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Abstract

Background: A ruptured ectopic pregnancy is a true emergency and remains the leading cause of pregnancy related deaths worldwide. The objective is to study the clinical profile of ectopic pregnancy in a tertiary care hospital.

Methods: A retrospective study conducted at Coimbatore Medical College Hospital from Jan 2019 to Dec 2020. A total of 149 patients with ectopic pregnancy were analysed on patient characteristics, risk factors, intraoperative findings and treatment modality.

Results: A majority of patients with ectopic pregnancy (64.5%) did not have any risk factors, while 33.5% had predisposing risk factors associated with ectopic pregnancy. Most common presentation was ruptured tubal ectopic and the commonest site was ampulla (85.9%). There was 1 maternal death out of 149 cases reported (0.67%).

Conclusion: Ectopic pregnancy still remains one of the major causes of maternal morbidity and mortality. Early diagnosis and referral in hemodynamically stable state along with use of minimal access surgery or medical management can change the scenario of ectopic pregnancy in the developing world.

Keywords: Ectopic; Pregnancy; Risk Factors.

Introduction

Ectopic pregnancy is any pregnancy that occurs outside the uterine cavity. A ruptured ectopic pregnancy is a true emergency and remains the

leading cause of pregnancy related first trimester deaths¹. The number of ectopic pregnancies has increased dramatically in the past few decades. The rise can be attributed partly to increase in certain risk factors but mostly to improved diagnostics². We are challenged by late presentation and rupture in most cases.

Pelvic inflammatory disease (PID), ovulation inducing drugs, previous abdominal-pelvic surgeries and intra-uterine contraceptive device use has been cited as contributing factors³. Approximately 75% of deaths in the first trimester and 9% of all pregnancy-related deaths are due to ectopic pregnancy. Any woman of reproductive age presenting with abdominal pain, vaginal bleeding, syncope or hypotension with or without amenorrhea with pregnancy test positive should be provisionally diagnosed as an ectopic pregnancy unless proved otherwise. The evaluation may include a combination of determination of urine and serum human chorionic gonadotrophin (hCG) levels and ultrasonography. Key to the diagnosis is determination of the presence or absence of an intrauterine gestational sac correlated with serum β hCG levels. Greater awareness of risk factors and improved technology (biochemical markers and ultrasonography) allows ectopic pregnancy to be identified before the development of life threatening events. This study was undertaken to study the incidence, clinical presentations, risk

factors, management of cases and outcome of all cases of ectopic pregnancy that presented to our center over a period of two years.

Materials and Methods

This retrospective study was conducted over a period of 2 years from January 2019 to December 2020 in Department of Obstetrics and Gynecology at Coimbatore Medical College & Hospital. A total of 149 cases reported during this period with ectopic pregnancy were admitted at our hospital through emergency or outpatient department. Information regarding total number of deliveries during study period, details of demographic characteristics, parity, use of contraception, diagnostic tool used, detail obstetric history, risk factors for ectopic pregnancy, site of ectopic pregnancy, line of management as well as morbidity and mortality were obtained. Relevant investigations included complete blood picture, blood group, urine pregnancy test (UPT), and ultrasound. Based on thorough evaluation, type of management was decided. Data were collected, analyzed and tabulated.

Results

The incidence of ectopic pregnancy was 0.2 % out of total obstetric admissions. The mortality was 1.4% out of total maternal deaths in the study period.

In our study, ectopic pregnancy is more common in the age group of 21-25, which accounts to 40%. (Table 1)

Table 1: Distribution According to Age.

Age (in Years)	No. of Patients Observed	Percentage
</= 20	5	3.35
21-25	61	40.9
26-30	44	29.53
31-35	32	21.47
>35	7	4.69

Incidence of ectopic pregnancy in primigravida was 29%, in G2 was 28.8% and G3 was 35.5%. (Table 2)

Table 2 : Distribution According to Parity.

Gravida	No. of Cases	Percentage
1	44	29.53
2	40	26.84
3	53	35.57
4	6	4.03
>4	6	4.03

Out of the total 149 cases, 64.5% of women did not have any risk factors and 33.5% of women had risk factors predisposing to ectopic. In that the commonest risk factor was previous abortion in 18% of cases, tubal ligation in 8.7%, IUCD insertion in 1.34% and previous ectopic was present in 1.34% of cases. (Table 3)

Table 3: Distribution According To Risk Factors.

Risk Factor	Number	Percentage
Pid	7	4.69
Previous Abortion	28	18.79
Iucd	2	1.34
Tubal Ligation	13	8.72
Previous Ectopic	2	1.34

87% were treated with surgical management where 10.74% were treated with medical management. Out of the 16 cases in medical management, 3 cases failed, and all the three were managed surgically. (Table 4)

Table 4: Management Modalities.

Method	Number	Percentage
Surgical	130	87.25
Medical	16	10.74
Failed Medical	3	2.01

In intra-op findings, the commonest site of ectopic was the ampulla, while 85.9% of cases and 8.05% had ectopic in cornua. (Table 5).

Table 5 : Site of Tubal Rupture In Ectopic Pregnancy.

Site	Number	Percentage
Ampulla	128	85.9
Isthmus	4	2.68
Cornua	12	8.05
Infundibulum	1	0.67
Fimbria	3	2.01
Ovarian	1	0.67

Out of 149 total subjects, 132 had hemoperitoneum, whereas 17 (unruptured) did not have hemoperitoneum (Table 6)

Table 6 : Presence of Hemoperitoneum.

Hemoperitoneum	Number	Percentage
Present	132	88.6%
Absent	17	11.4%

85.5% of patients had tubal rupture. 10.06% was unruptured. 3.3 % had tubal abortion, and chronic ectopic was seen in 1.34%. Out of the 132 patients who had hemoperitoneum, 61.3% had hemoperitoneum less than 500 ml, and 38.6% had hemoperitoneum of more than 500ml. (Table 7)

Table 7: Distribution According to Operative Findings.

Operative Findings	Number	Percentage
Tubal Rupture	127	85.23
Unruptured	15	10.06
Tubal Abortion	5	3.35
Chronic Ectopic	2	1.34
Hemoperitonium (<500ml)	81	61.3
Hemoperitonium (>500ml)	51	38.7

Discussion

Most common age group in our study was 21-30 years (70%) which is slightly higher when compared to the study done by Khaleeque et al⁴ and Rajendra et al.⁵ but it is comparable to the study done by Arti Gupta⁶. In our study, the incidence of ectopic in primi was 29.5%, which is comparable to the study done by Pushpa et al⁷, which shows an incidence of 27.5%. On evaluation of risk factors, previous ectopic was seen in 1.34%, which is very low compared to the study done by Rajendra et al⁵, who reported 5.7%. History of tubal ligation was observed in 8.7%, which is comparable to the study done by Arti Gupta et al⁶, Rajendra et al⁵. Earlier, the incidence of ectopic with Cu-T was very high. But after the introduction of Cu-T 380A, the incidence of ectopic with Cu-T insertion has come down drastically. The incidence of ectopic in IUCD users in our study was 1.34% which is less when compared to the study done by Arti Gupta et al⁶(3.89%) and Gaskin et al⁸ (<1%). In the study by Gaskin et al⁸, he reinforces that ectopic pregnancy can occur in normal fallopian tubes even in the absence of risk factors, which is proven in our study that 64.5% did not have any risk factors. In our study, most common site was ampulla, which was observed in 85% of cases, which is high as compared to the study done by Arti Gupta et al.⁶(65.5%). The cornual ectopic as observed in our study was 8.05%, which is comparable to the study done by Khaleeque et al⁴ (10.57%). Tubal rupture was found in 85.5% which is comparable to the study done by Arti Gupta et al⁶ (78.49%). In our study tubal abortion was seen in 3.35% which is comparable to the study done by Rajendra et al⁵ (5.7%). In our study, 87.25% were managed surgically, which is comparable to study done by Pushpa et al⁷(85.7%).

Conclusion

Ectopic pregnancy is still a challenge for Obstetricians. The diagnosis is complicated by wide spectrum of clinical presentation and hemodynamic

shock.⁹ Ectopic still remains the leading cause of mortality in early pregnancy.¹⁰

There is an in rising trend in ectopic pregnancies because of better diagnostic modalities. In spite of that we receive most of the patients late in the course of the disease. Early diagnosis and referral in hemodynamically stable state along with the use of minimal access surgery or medical management can change the scenario of ectopic pregnancy in the developing world, and at the same time preserve the potential for future fertility.

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