

A Study on Presentation and Management of Ectopic Pregnancy At A Tertiary Care Hospital

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Abstract

Introduction: Ectopic pregnancy and its consequences are the most severe form of obstetric emergency during first trimester of pregnancy. It is a life threatening emergency leading to significant maternal morbidity and even mortality.

Aim: To study the high risk factors and to know the types of clinical presentation, method of diagnosis, treatment and the outcome.

Methodology: A prospective study was conducted at a tertiary care teaching hospital Gulbarga from 1st October 2020 to 30th September 2022. All cases of ectopic pregnancy which were admitted and managed during this period were included in the study. All collected data were analyzed.

Results: Total 30 cases were studied. Classical symptoms of amenorrhea, pain abdomen and bleeding

per vaginum were observed in 60% cases. In most of the cases, there was no identifiable risk factor. One patient had h/o previous ectopic pregnancy followed by ipsilateral salpingectomy. One more patient had h/o laparoscopic tubal surgery for tubal blockage. All cases were diagnosed using Transabdominal sonography and Beta-Human Chorionic Gonadotropin with urine pregnancy test correlation. All cases were managed surgically except two cases in which medical management with methotrexate alone benefitted. Most cases were multigravida and common between 22 -32 years age group (63.33%). Right sided Tubal ectopic pregnancy was common (73.3%). EP was present in ampullary region in 43.3% cases. 80% of the s

Conclusion: Use of ultrasonography and human chorionic gonadotropin assay serve as valuable adjuncts to early diagnosis and management. Ectopic pregnancy

mostly presents as an obstetrics emergency in our hospital with ruptured ectopic pregnancy with haemoperitoneum. Therefore, early diagnosis and timely intervention is necessary to decrease the mortality rate.

Keywords: Ectopic pregnancy, Obstetric emergency, salpingectomy, Beta-Human Chorionic Gonadotropin, methotrexate, ampullary region, hemoperitoneum, blood transfusion.

Introduction

Ectopic pregnancy is one of the commonest cause of obstetric emergency as well as maternal morbidity and mortality during first trimester of pregnancy. Management of ectopic pregnancy has changed and improved over time.

In 1903 J. Whitridge Williams said following words regarding management of ectopic pregnancy - "As soon as an unruptured extra-uterine pregnancy is positively diagnosed, its immediate removal by laparotomy is urgently indicated, since rupture may occur at any time and the patient die from haemorrhage before operative aid can be obtained.

But in present scenario, we have multiple options like medical, surgical route via laparotomy or laparoscopy to manage ectopic pregnancy. Still ectopic pregnancy remains the leading cause of early pregnancy related death.

Ectopic pregnancy and its consequences contributes approx. 19% of maternal near miss with case fatality index of 2.85%. It is responsible for 4.34% of maternal mortality even in today's scenario based on a study .

In this background, we have conducted the present study to identify the high risk factors and to know the types of clinical presentation, method of diagnosis and mode of management and outcome of management of ectopic pregnancy in our tertiary care teaching hospital.

Materials And Methods

Study design : A prospective observational study

Conducted at our tertiary care Centre, Mahadevappa Rampure Medical College , Karnataka , India.

The Study duration was from 01 october 2020 to 30th september 2022. The institutional ethical approval was taken prior to conduct of the study. Informed consents were taken from all patients who participated in the study.

Sample size : The study population comprised of patients with ectopic pregnancy who had reported to Obstetrics and Gynaecology department and there after admitted and managed. During the study period total number of 30 cases were admitted with diagnosis of ectopic pregnancy.

Inclusion criteria

All patients with ectopic pregnancy who were admitted and managed during the study period.

Exclusion criteria

Patients who refused hospital admission in view of medical management

Parameter and statistical analysis

Demographic profile of patients, clinical signs and symptoms, obstetric parameters like gravida, parity, risk factors for EP, site and side of ectopic pregnancy, mode of diagnosis and management and the requirement of blood transfusion were recorded.

Results

During the study period total 30 patients were attended and admitted with ectopic pregnancy. The mean age group of study population was 25.5 ± 2.14 (1 SD) yrs and range of patients age were 19 to 32 years (Median age 25 yrs).

In most of the cases, there was no identifiable risk factor. One patient had h/o previous ectopic pregnancy f/b

ipsilateral salpingectomy. One more patient had h/o laparoscopic tubal surgery for tubal blockage. In the study population, it was found that ectopic pregnancy was highest in primigravida (40%) and 20% among second Gravida and 33.3% in third Gravida.

96.6% of patient (29/30) with no past history of ectopic pregnancy were admitted and treated (Table 1). Overall 75.5% of ectopic pregnancies were found on right side (22/30), and 26.6 % had left sided ectopic pregnancy. Total ruptured cases of ectopic pregnancy were 76.6% (23/30).

Most common site of rupture of ectopic pregnancy was ampulla of fallopian tube i.e 53.3% (16/30). 13.3 % patients had isthmic ectopic pregnancy and 13.3 % had interstitial pregnancy, one was at cornuo-isthmic junction. 70% of the patients needed blood transfusions. UPT was positive in 96.6 % of the cases (Table 2).

Table 1: Distribution of patient according to demography and clinical history.

Characteristics		Frequency (n)	Percentage (%)
RELIGION	Hindu	24	80
	Muslim	6	20
Age group in yrs	19-25	21	70
	26-32	13	43.3
Gravida	1	12	40
	2	6	20
	3	10	33.3
	4	1	3.33
Parity	0	12	40
	1	10	33.3
	2	8	26.6
Abortion	0	24	80
	1	6	20
h/o ectopic	1	1	3.33

Table 2: Distribution of different clinical parameter of study population.

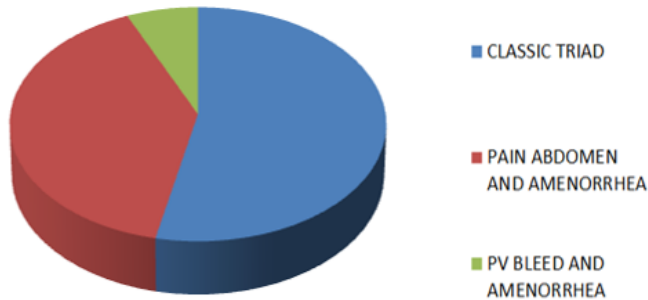
Characteristics		Frequency (n)	Percentage (%)
1.Side	Right	22	75.5
	Left	8	26.6
2.Site of ectopic pregnancy	Ampulla	16	53.3
	Isthmus	4	13.3
	Interstitial	4	13.3
	Cornuo-isthmic junction	1	3.33
3.Ruptured with Hemoperitoneum	Yes	23	76.6
	No	7	23.3
4.Blood transfusion	Yes	21	70
	No	9	30
5.UPT	Positive	29	96.6
	Negative	1	3.33

Classical triad of ectopic pregnancy i.e amenorrhoea, pain lower abdomen and bleeding per vaginum was only present in 53.3% of cases.

In our study group we found 40% of cases with pain lower abdomen and amenorrhea. Only 6.6 % had amenorrhea with PV spotting. Urinary BHCG test was negative only in 90.62% of cases.

All cases were diagnosed using TAS and Beta-HCG with UPT correlation. 27 cases were managed surgically where emergency laparotomy and ipsilateral salpingectomy was done.

In 3 cases, medical management with methotrexate alone benefitted. 20 out of 30 cases (66.6%) were administered blood and blood products (Packed RBC/ FFP) in perioperative/post operative period (Table 2).



Graph 1

Discussion

The first diagnosis of ectopic pregnancy as cause of maternal mortality was known to us in eleventh century. In 1759 the report of first successful surgical management of ectopic pregnancy was made by Surgeon Dr John Bard, New York USA. Salpingectomy as surgical intervention for ruptured ectopic was first done by Scottish surgeon Dr Robert Lawson Tait in 1883.³ Thereafter salpingectomy became a standard practice for management of ruptured ectopic pregnancy. The incidence of ectopic pregnancy has increased since last few decades due to increased adoption of medically assisted reproductive (MAR) technique. However, the morbidity and mortality are decreasing due to advancement of medical technique, early detection and increased awareness of the condition. A study conducted by Samiya Mufti et al at LD Hospital Srinagar J&K reported the incidence of ectopic pregnancy was 3.99 per 1000 deliveries.⁴ Royal College of Obstetrics and Gynaecologist (RCOG) in their guidelines reported the incidence of ectopic pregnancy in UK was 11 per 1000 deliveries.⁵

There was no much identifiable predisposing factors for ectopic pregnancy, but one patient had h/o previous ectopic pregnancy f/b ipsilateral salpingectomy. One more patient had h/o laparoscopic tubal surgery for tubal

blockage.⁶ Nulliparous ladies were more prone to have ectopic pregnancy than multiparous ladies. Our study is also consistent with the finding of the study reported by Prasanna B et al.⁷

Several studies suggested tubal ectopic pregnancy has been affected right side more than left side.^{6,8} Our study also found the frequency of ectopic pregnancy on right side was more than that of left side.

The classical presentation of ectopic pregnancy is characterized by triad of amenorrhoea, pain abdomen and vaginal bleeding or spotting.¹ Present study has revealed only 53.3% cases presented with classical triad. Pain abdomen were the most common presentation and our findings were consistent with the published studies of Gupta R et. Al.⁹ Approx. 70% cases required blood transfusion in our set up. These findings were consistent with other studies from India.¹⁰

Conclusion

Ectopic pregnancy is still one of the major contributors of early pregnancy emergency admissions, morbidity and mortality.

Ectopic pregnancy mostly presents as an obstetric emergency in our hospital with ruptured ectopic pregnancy with haemoperitoneum.

Majority cases presented with pain abdomen and amenorrhoea and PV bleed.

Use of ultrasonography and human chorionic gonadotropin assay serve as valuable adjuncts to early diagnosis and management.

High degree of clinical suspicion, early diagnosis and timely intervention are mainstay for successful outcome and mortality rate can be decreased.

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