



Clinical Study of Ectopic Pregnancy

KEYWORDS

Ectopic pregnancy, ultrasound, laparotomy, salpingectomy

Dr.S.Venkata Ramana

Assistant Professor, Department of Obstetrics & gynaecology Government General Hospital, Kurnool – 518 002 Andhra Pradesh.

Dr.G.Padmaja

Assistant Professor, Department of Obstetrics & gynaecology Government General Hospital, Kurnool - 518002 Andhra Pradesh.

ABSTRACT

Ectopic pregnancy is one of the commonest acute abdominal emergencies. This study is done at our hospital to evaluate symptomatology and to analyze the morbidity and mortality in these patients.

Introduction

An ectopic pregnancy is one in which the fertilized ovum is implanted in a site other than the uterine cavity.¹ Incidence of ectopic pregnancy is 1:160 deliveries.² Clinical presentation is variable from acute to chronic presentation. The frequency with which ectopic pregnancy presents in the gynaecological department, the disparity of its signs and symptoms and the intricacies in its diagnosis has made ectopic pregnancy both an interesting and a challenging problem. This study is aimed to find the incidence of ectopic pregnancy in the study population and to evaluate the symptomatology and clinical presentation and to analyze the morbidity mortality occurring in these patients.

Material and methods

The study is based on the clinical diagnosis and management of ectopic pregnancy treated at Government General Hospital, Kurnool. There are 42 cases of ectopic pregnancy and during the same period there were 16,619 deliveries. The incidence of ectopic pregnancy is 1 in 395 deliveries.

All patients with a history suggestive of ectopic pregnancy and in whom diagnosis was confirmed by clinical acumen, ultrasound or direct observation at laparotomy are included in the study.

Observation and analysis

Total number of deliveries were 16,619 out of these, there were 42 ectopic pregnancies in this study.

Incidence of age

The maximum age incidence in this series is between 25-29 years with a mean age of 27 years. The maximum age of the patient is 42 yrs and the minimum age is 19 yrs. The incidence of ectopic pregnancy decreased with increasing age.

Gravidity in the present study

In the present series, incidence of ectopic pregnancy is seen in 8 (27%) of primigravidae and 34 (73%) of multigravidae.

Parity status

71.4% of ectopic pregnancy occurred in multiparous group, 8 patients were para1, while a maximum number 13 were para 2.

Nulliparity and ectopic gestation

Nulliparous group of patients are around 12. Duration of

interval between marriage and present ectopic in 28.57% of nulliparous women. There are 7 patients in whom the interval ranged from 1-2 yrs. Only 3 patients (25%) had an interval of 2-4 years. In the majority of patients (53.34%) the period of infertility is less than 2 years.

The interval between the last child birth and the present ectopic pregnancy in 30 parous women are studied. In 17 patients the interval is between 2-4 years, which is maximum (57.63%), thereby showing that a period of interval for more than 2 years is associated more frequently with ectopic pregnancy.

Incidence of predisposing factors

Of the various risk factors, PID is seen in 23.80%, 6 patients had history of sterilization, 4 patients had history of abortions, 2 patients had repeat ectopic.

Symptomatology in the present study

95% presented with pain abdomen, amenorrhoea in 80.95% and bleeding per vaginum in 50% of cases. The triad of three symptoms amenorrhoea, pain abdomen and bleeding per vaginum is seen in 46% of cases.

Incidence of signs in the present study

On examinations 95% of cases had pallor. 69% had abdominal tenderness and 47.61% had rigidity and guarding. Forniceal tenderness 71.4% and forniceal boggy in 59.04%.

Investigations:

Haemoglobin was below 60-68% in most of cases.

Blood grouping and Rh typing : 19 of patients are B+ve group, 10 are A+ve group, 9 are O+ve and 2 are AB+ve.

1 is O -ve and 1 is AB -ve.

40 of patients are Rh positive and 2 are Rh negative.

Urine pregnancy test: positive in 92.8%, delayed positive in 4.76% and negative in 2.38%.

Culdcentesis is performed in 20 patients (47.6%) and is positive in 18 (38.09%).

Ultra sound is performed in 92% of cases. Diagnostic accuracy of ultrasound is 95.8%. The classical findings of empty uterus, non specific complex adnexal mass and fluid

in POD are demonstrated in almost all cases. The combination of the two is 88.08% . In 3 cases laparotomy confirmed the diagnosis.

Tubal pregnancy is the most common finding seen in 95% of cases. Ampullary region is the most common site in 19 cases . There is one case of heterotopic pregnancy and two cases of ovarian pregnancy.

Haemoperitoneum: Out of 2 patients 42% had blood loss between 1000ml – 1500ml and 30% had significant amount of blood loss which is greater than 1500ml.

Type of ectopic gestation

	Type	%	No. of cases
1.	Tubal Rupture	78.57%	33
2.	Tubal abortion	16.66%	7
3.	Unruptured	4.76%	2

Other pelvic pathology: 14% had adhesions both flimsy and dense, hydrosalpinx of opposite tube is seen in 2 cases, corpus luteum of opposite ovary is seen in 5 cases.

Surgical treatment in cases of ectopic gestation

Sl.No.	Operative Procedure	No. of Cases
1	Unilateral Salpingectomy	11 (26.19%)
2	Unilateral Salpingectomy with tubal ligation (Opposite Side)	14 (33.33%)
3	Bilateral Salpingectomy with partial oophorectomy	1 (2.38%)
4	Unilateral salpingo oophorectomy	8 (19.04%)
5	Salpingo oophorectomy and tubal ligation (Opposite side)	6 (14.28%)
6	Salpingostomy	2 (4.76%)

All cases are managed surgically as most of them are ruptured ectopic pregnancies. Unilateral salpingectomy with tubal ligation of opposite tube is done in most of the cases. Bilateral salpingectomy is done in one case as opposite tube had hydrosalpinx.

One case of heterotopic pregnancy with rupture at fimbrial region and salpingectomy was done.

Blood transfusions: Most of the patients recovered with 2 units of blood transfusion, 2 cases needed four units of blood transfusion.

Discussion

In a multicentric case control study in India the incidence of ectopic pregnancy rate is 3.12 per 1000 pregnancies. In our series it is 1 in 395 deliveries. The decreased incidence in our study may be because women marry and finish their childbearing at an early age even before risk factors for ectopic pregnancy develop.

The age incidence of ectopic pregnancy is comparable to the study by Dr.Nudrat Sohail reporting an average of 27 yrs and is also in conformity with the same study.

In our present study predominant risk factor is prior tubal operation 33.3%. It is similar to study made by Garnett and Vukoo.

In this series 4(9.52%) patients had primary infertility and one (2.38%) had secondary infertility which coincided with a study made by Priti S Vyas had an incidence of 9.69% of

primary infertility and 4.59% of secondary infertility.

Abdominal tenderness is seen in 69.04% which correlates with Dr. Priya Bhide's study 69.56%.

Cervical tenderness is present in 64% of cases and is in accordance with Dr.Priti.S.Vyas 69%

Transabdominal ultrasound is used as an additional diagnostic aid in 92% and diagnostic accuracy is 95.8%. Ectopic pregnancy should be diagnosed at the earliest, preferably in an unruptured state, so that maternal morbidity could be minimised and the tubal function preserved for future fertility.

Dr Tinor and Roltem demonstrated that with use of improved vaginal probe the live tubal ectopic pregnancy can be diagnosed accurately before it ruptures or before tubal abortion occurs.

Management

All cases of ectopic gestation, once diagnosed are submitted for laparotomy. In all cases of post sterilization ectopic gestation, salpingectomy of the affected tube and religation of the other tube are undertaken to avoid recurrence of ectopic pregnancy on the other side.

Site of ectopic gestation at laparotomy by various authors

Sl . NO. SITE	Ayesha Imran ³	Priti S Vyas ⁴	Present series
I TUBAL	49	160	39
1) Cornual	--	--	2
2) Isthmus	7	40	10
3) Ampullary	37	76	20
4) Fimbrial	4	28	4
5) Isthmicampullary	--	11	2
6) Entire tube	--	1	1
II OVARIAN	1	2	2
III HETERO-TOPIC		2	1

Summary

- This study of ectopic gestation was done at Government General Hospital, Kurnool to evaluate the incidence, various clinical aspects of symptoms and signs, site, location, role of ultrasonography and various surgical procedures. Maternal morbidity and mortality due to various causes was analysed.
- The results of the present study were compared to studies by other authors.
- In this study there were 42 cases of ectopic pregnancy with an incidence of 1 in 395.
- The age incidence in the present series ranged from 15-42 yrs. Maximum of 30 patients was in the range of 20-29 yrs and the average age incidence is 27 yrs.
- 8 cases are nulliparous women and 34 women are multiparous.
- Maximum number of nulliparous patients had infertility ranging from 2-15 years.
- The following risk factors are identified in this present study. 14 women underwent sterilization and 10 women had a history of PID, 4 women had previous history of abortions, 2 women had recurrent ectopic, 1 woman underwent D&C previously. 7 women had previous caesarean section, 6 women had undergone tubal ligation and 2 underwent laparoscopic sterilisation and 6 underwent concurrent sterilization.

- Clinical presentation of patients in this study include 95% of pain abdomen, amenorrhoea in 80.95%, bleeding per vaginum in 50%, 64.28% had vomiting, 16% presented in shock. Abdominal tenderness is elicited in 69.04% and forniceal mass in 59.04%
- Diagnostic accuracy of Ultra sonography is 95.85% and it is used as predominant diagnostic mode.
- Tubal pregnancy was found in 39 women and ovarian pregnancy in one case.
- There is 1 case of heterotopic pregnancy
- At laparotomy right tube is involved in 54% and left tube in 45% .
- The most common site is ampullary (45%).
- During laparotomy, 2 cases had hydrosalpinx of contralateral tube, 10 had adhesions, and corpus luteum of opposite ovary is seen in 5 cases. In one case entire tube is involved.
- At laparotomy unilateral salpingectomy is performed in 11 cases, unilateral salpingectomy with tubal ligation of opposite side in 14 cases, bilateral salpingectomy in 1 case unilateral salpingo-oophorectomy in 8 cases and salpingostomy in 2 cases. salpingo-oophorectomy with opposite tubal ligation in 6 cases.
- Blood transfusion is mandatory in almost every case.

Conclusion

- Ectopic pregnancy is a disaster of reproduction and is a leading cause of maternal mortality in the first trimester
- It still remains a surgical emergency in spite of the advanced diagnostic methods.
- Tubal sterilization failure happens to be the most common cause of ectopic pregnancy.
- Primary care physicians should be vigilant in prompt diagnosis and management which can help the patient not only to save her life but also her precious tube.

REFERENCE

1. Tindall.V.R: Ectopic pregnancy. In: Jeffcoate's Principles of Gynaecology, 7th edition, Oxford, Butterworth-heinemann Ltd. 1996;pp212-225. | 2. Friyal Omer Mohamed Nour University of Khartoum, Sudan, Geneva-Ectopic pregnancy Incidence, morbidity and mortality. | 3. Ayesha Imran, Nilofer Mustafa .Frequency of difficult presentations and surgical management of ectopic pregnancy 2009 issue no.3. | 4. Priti S vyas, Pratibha vaidya Epidemiology Diagnosis and management of ectopic pregnancy 1998 mhtml:file:///I:/thesis Mumbai research ectopic ..mht.