



Ectopic Pregnancy: An Analysis of 32 Cases

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Abstract

Introduction: Ectopic pregnancy is one of the life threatening emergencies in first trimester of pregnancy. It is a condition where blastocyst is implanted at sites other than uterine cavity.

Material and Methods: An analysis of 32 cases of ectopic pregnancy presenting over a period of one year was done at our institution. History including significant past medical and surgical history along with examination details were noted. Treatment given in form of medical and surgical treatment with exploratory findings was recorded.

Observations and Results: The incidence of ectopic in the study was 3.805 per 1000 deliveries. Three-fourth of our patients belonged to age group 21 to 30 years. Most of the patients i.e. 62.5% were diagnosed as ruptured ectopic and 56.25% had identifiable risk factors like previous D&C for abortion, PID and infertility. The diagnosis of ectopic pregnancy was made by history and clinical examination, urine pregnancy test, USG, abdominal tap etc. as per clinical findings. Out of 32 cases only one was subjected to medical treatment, rest all were managed surgically with 35.48% patients undergoing conservative surgery.

Keywords: Ectopic Pregnancy, salpingectomy, salpingostomy.

Introduction

Ectopic pregnancy is one of the most life threatening emergencies in early pregnancy. By definition ectopic pregnancy is one in which the fertilized egg becomes implanted at sites other than normal uterine cavity - sites which are not conducive to further growth and development of the fertilized egg. It not only leads to foetal wastage but also to increased maternal morbidity and mortality and in many cases significantly compromises the future fertility of the patient. By identifying and reducing the risk factors and catching the patient at the earliest it is possible to improve the prognosis so far as morbidity, mortality and fertility are concerned.

Material and Methods

The study includes an analysis of 32 cases of ectopic pregnancy admitted in Dr. RMLC Hospital over a period of one year from January 2014 to Jan 2015. The history and examination details included age, parity, marital status and presenting symptoms. Any significant past history suggestive of infertility, pelvic inflammatory disease, previous ectopic pregnancy, tubal surgery, prior surgery or procedure done or any medical disease was recorded.

Examination findings including that of vital parameters and thorough abdominal and bimanual examination were noted.

Diagnosis was made with the help of urine pregnancy test, colpocentesis, abdominal tap, ultrasonography and/or laparoscopy.

Treatment given was recorded as Medical-methotrexate, Surgical- Conservative and Radical. The findings on exploration were recorded.

Observations and Results

In the present study conducted over a period of one year the total number of deliveries was 8408 and the total number of ectopic pregnancies were 32; giving an incidence of ectopic pregnancy of 3.805 per 1000 deliveries.

Age and Parity: In the study 75% of patients belonged to the age group of 21 to 30 years (Table D). The incidence of ectopic pregnancy was highest in primigravidae (53.12%) and decreased with increased parity (Table 2).

Table 1: Age wise distribution of ectopic pregnancy cases

Age Group	No. Of Cases (%)
21-25	6 (18.75%)
26-30	18 (56.25%)
31-35	5 (15.62%)
36-40	2 (6.25%)
>40	1 (3.12%)

Table 2: Parity wise distribution of cases

Parity	No. Of Cases (%)
0	17 (53.12%)
1	10 (31.25%)
2	3 (9.375%)
3	1 (3.12%)
4	1 (3.12%)

Risk factors

In this study more than half of the patients had identifiable risk factors, important being H/o D&C, prior pelvic surgery, symptoms suggestive of PID, previous ectopic pregnancy and infertility. In rest of the cases no identifiable risk factors were present.

Table 3: Risk factor wise distribution of cases

Risk Factors	No. Of Cases (%)
H/O D&C	7 (21.87%)
H/O PID	3 (9.37%)
H/O pelvic surgery	3 (9.37%)
H/O previous ectopic pregnancy	2 (6.25%)
H/O infertility	3 (9.37%)
no risk factors	14 (43.75%)

Management

In the present study open surgery in form of salpingectomy, salpingostomy, and oophrectomy was the main treatment modality. Medical management in form of methotrexate was given to only one patient. During surgery tubal pregnancy was present at different parts of tubes in all cases.

Table 4: site and acuity of ectopic

Event	No. Of Cases (%)
tubal pregnancy	32 (100%)
ruptured tubal	20 (62.5%)
unruptured tubal	11 (34.375%)
chronic tubal	1 (3.12%)

Table 5: Treatment received

Surgery Performed	No. Of Cases (%)
salpingectomy	20 (62.5%)
partial salpingectomy	3 (9.37%)
salpingostomy	7 (21.87%)
milking of tube	1 (3.125%)
medical treatment (methotrexate)	1 (3.125%)

Discussion

The incidence of Ectopic pregnancy has been increasing worldwide. Centers for Disease Control (CDC) USA⁽¹⁾ reported a fourfold increase in its incidence from 1970 to 1983 from 4.5 to 16.18 per 1000 pregnancies. However, at the same time the fatality rate decreased from 35.5 to 3.8 per 10,000 ectopic pregnancies, a decrease of 90%.

According to American College of Obstetricians and Gynaecologists (2008)⁽²⁾, 2% of all first trimester pregnancies in United States are are ectopic pregnancies and these account for 6% of of pregnancy related death. However Anderson and colleague reported ectopic pregnancy related mortality to be 18 times higher in black women⁽³⁾.

In a multicentric case control study conducted in India (ICMR Task Force Project,1990), the incidence of ectopic pregnancy is 3.12 per 1000 pregnancies or 3.86 per 1000 live births. In our study the incidence of ectopic pregnancy is 3.805 per 1000 pregnancies.

In our study the peak age of ectopic pregnancy is 26 to 30 years (56.25%) and primigravidas were most commonly affected. Similar results were found by Majhi AK and Roy N⁽⁴⁾ in their study of 180 cases of ectopic pregnancy. Westorm in 1981 in Sweden⁽⁵⁾ and Rubin et al in USA⁽⁶⁾, however reported an increasing incidence with age. Difference may be due to early age of marriage and early child bearing in India. In our study more than half of the patients had one or more identifiable risk factors (56.25%). Common risk factors being H/o D&C (21.87%), H/O pelvic surgery (9.37%), H/O infertility (9.37%), H/O previous ectopic pregnancy(6.25%) and history suggestive of PID (9.37%)(Table:3). Majhi AK and Roy N⁽⁴⁾ found similar incidence of risk factors in their study , common risk factors being H/O abortions (26.1%) , H/O infertility (12.2%) , PID (12.8%) and H/o of previous surgery(11.1%). Priti S Vyas and P Vaidya⁽⁷⁾ in their study found P.I.D to be the most common factor with incidence of 25%. Centre for Disease Control and prevention, 2007 found that one episode of salpingitis can be followed by subsequent ectopic pregnancy in upto 9% of women. According to Ankum and colleague, 1996⁽⁸⁾ after one previous ectopic pregnancy the chance of another is approximately 10%.

The treatment options in case of ectopic pregnancy are :

*Expectant management

*medical management

*surgically administered medical treatment

*surgical management

Recent advances in laparoscopic surgery have brought an era of conservative surgical management. In our study open surgery was the main treatment modality with 35.48% patient

undergoing conservative surgical management like salpingostomy, partial salpingectomy etc.

De Cherney⁽⁹⁾ in his series reported 35.5% patients undergoing conservative surgery. Priti S Vyas and P Vaidya⁽⁷⁾ have reported 43.8% patient undergoing conservative surgery. Thornton et al (1991)⁽¹⁰⁾ and Kooi and Kock (1993)⁽¹¹⁾ have reported higher subsequent pregnancy rates with salpingostomy than with salpingectomy.

However, Silva et al (1993)⁽¹²⁾ reported overall pregnancy rate not significantly different for salpingectomy or salpingostomy. So, obviously, none of these techniques can guarantee tubal patency.

Conclusion

The study on ectopic pregnancy conducted at Dr. RMLC hospital, Lucknow was aimed to find out the incidence of ectopic pregnancy and various risk factors associated with it. P.I.D. especially due to unsafe abortions or STDs is the most important and easily preventable etiological factor. Early diagnosis and management of P.I.D. is therefore of utmost importance. High degree of clinical suspicion for ectopic pregnancy should be there in case of presence of risk factors and must be monitored with serial beta HCG and ultrasonography. Early diagnosis not only decreases morbidity and mortality but also increases the scope of conservative or less invasive management thus helping in preservation of future fertility.

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