

OUTCOME OF ECTOPIC PREGNANCY: A PROSPECTIVE CLINICAL STUDY IN A TEACHING HOSPITAL

K. Saritha¹, R. Sowjanya², Sai Sudha³

¹Associate Professor, Department of Obstetrics & Gynaecology, Siddhartha Medical College, Vijayawada, Andhra Pradesh.

²Assistant Professor, Department of Obstetrics & Gynaecology, Siddhartha Medical College, Vijayawada, Andhra Pradesh.

³Post Graduate, Department of Obstetrics & Gynaecology, Siddhartha Medical College, Vijayawada, Andhra Pradesh.

ABSTRACT: Ruptured ectopic pregnancy is a life-threatening gynaecological emergency.

OBJECTIVE: To study the incidence, risk factors, clinical presentation and management of cases that presented in our hospital.

MATERIAL AND METHODS: This prospective study was conducted at the Department of Obstetrics and Gynaecology, Siddhartha Medical College, Vijayawada, between October 2012 to September 2015. All women presenting with ectopic pregnancy in the above period were included in the study.

RESULTS: There were a total of 69 cases of ectopic gestation with an incidence of 3.73 per 1000 pregnancies, highest incidence between age group 20-25 years, majority of cases were either second or third gravida. Commonest risk factor was pelvic inflammatory disease. Most of the ectopic gestation occurred in the ampullary part of the tube. All cases were ruptured ectopic and commonest surgery performed was total salpingectomy.

CONCLUSION: Early presentation, prompt diagnosis and management will decrease morbidity and mortality associated with ectopic pregnancy.

KEYWORDS: Ruptured Ectopic, Salpingectomy, Haemoperitoneum, Laparotomy.

HOW TO CITE THIS ARTICLE: K. Saritha, R. Sowjanya, Sai Sudha. "Outcome of Ectopic Pregnancy: A Prospective Clinical Study in a Teaching Hospital." Journal of Evolution of Medical and Dental Sciences 2015; Vol. 4, Issue 93, November 19; Page: 15831-15833, DOI: 10.14260/jemds/2015/2294.

INTRODUCTION: Ectopic pregnancy is a common complication encountered in the first trimester of pregnancy and is a leading cause of pregnancy related deaths in the first trimester.¹ Ectopic pregnancy causes foetal wastage, maternal morbidity and mortality and impairment of subsequent fertility due to repeat ectopic gestation which occurs in 10-15% of cases. There is an increase in the incidence of ectopic pregnancies worldwide. According to American college of obstetricians and gynaecologists (2008), 2% of all pregnancies are ectopic in U.S. & 3-4% worldwide. Nearly 95% of ectopic pregnancies are tubal ectopics. The majority of ectopic pregnancies implant in the ampullary region of the tube followed by isthmus, the fimbrial and cornual portion.

Other rare sites are cervix, ovary, previous caesarean scar, uterine cornu and broad ligament. The risk of ectopic pregnancy is increased in cases of pelvic inflammatory disease, IUCD usage, previous induced or spontaneous abortion, previous caesarean, failed tubal sterilisation procedures, tuberculosis and tuboplasty. The importance of ectopic pregnancy in our environment is peculiar because rather than join the global trend of early diagnosis and conservative approach in management, we are challenged by late presentations with rupture in more than 80% of the cases.^{2,3}

The definitive management of ruptured ectopic pregnancy is salpingectomy, total or partial. Conservative surgical methods include tubal milking and salpingotomy. The possibility of persistent trophoblastic disease and recurrence of tubal ectopic gestation following tubal milking limits its routine use as a conservative procedure. Medical management with methotrexate and expectant management are other methods available. Unfortunately, most of the cases presenting at our hospital were already ruptured. The objective of this study was to know the incidence, predisposing factors, clinical presentation and management of ectopic gestation.

MATERIAL AND METHODS: This prospective study was conducted at the Obstetrics and Gynaecology Department of Siddhartha Medical College, Vijayawada between October 2012 to September 2015. The subjects included all women in the reproductive age group admitted at the OBG department with suspicion of ectopic pregnancy. On admission complete history was taken with regard to age, parity, marital status, period of amenorrhoea, risk factors. Onset of symptoms and complaints at the time of admission were taken. Patients presenting with features of shock were resuscitated. Detailed general examination was done, evidence of anaemia, vital data recorded. Per abdominal examination was done, any tenderness, distension, rigidity, guarding and any swelling in the abdomen was noted.

Per speculum examination was done and bleeding through cervical os was noted. Bimanual examination was done for size of uterus, cervical motion tenderness; forniceal tenderness and presence of adenexal masses were noted. Investigations done include haemoglobin estimation, blood grouping & typing, HIV, HBsAg testing, urine for pregnancy testing, transabdominal and transvaginal ultrasound

Financial or Other, Competing Interest: None.

Submission 03-11-2015, Peer Review 04-11-2015,

Acceptance 11-11-2015, Published 17-11-2015.

Corresponding Author:

Dr. K. Saritha,

Plot No.15, Indian Airlines Colony,

Opp. Football Grounds, Trimulgherry-500015,

Secunderabad.

E-mail: saritha.kottu@gmail.com

DOI:10.14260/jemds/2015/2294.

examination, abdominal paracentesis and Culdocentesis. Based on history, clinical findings and above investigations cases were diagnosed as ectopic pregnancy.

OBSERVATIONS AND RESULTS:

Age in Years	Number of Patients	Percentage
18 -22	23	33.33
23 - 25	23	33.33
26 -30	18	26.09
30 and above	5	17.24
Mean Age 24.75 years Range 18 - 37 years		
Gravida		
Primigravida	11	15.94
Gravida 2	36	52.17
Gravida 3	19	27.54
Gravida 4	3	4.35
Gestational Age at Presentation		
4-6 weeks	13	18.84
7 -8 weeks	47	68.12
9 -10 weeks	6	8.70
11 -12 weeks	3	4.35

Table I: Demography and Obstetric History

Risk factors	Number of Cases	Percentage
Previous abortion— spontaneous or induced	14	20.29
Pelvic inflammatory disease	24	34.78
Previous Surgery		
Caesarean section	11	15.94
Tubectomy	3	4.35
Appendectomy	1	1.45
Previous ectopic pregnancy	2	2.90
No risk factor	21	30.43

Table II: Predisposing Risk Factors for the Ectopic Gestation

*More than one risk factor present in some cases.

Presenting Symptom	Number of Cases	Percentage
Abdominal pain	69	100
Bleeding per vagina	15	21.74
Abdominal distension	10	14.49
Shock	21	30.43

Table III: Presenting Symptom in Patients with Ectopic Pregnancy

*More than one presenting symptom present in some cases.

Site of Ectopic	Number of Cases	Percentage
Tubal	63	94.20
Ampullary	44	63.77
Isthmus	14	20.29
Fimbrial	4	5.80
Interstitial	1	1.45
Cornual	2	2.90
Heterotopic	1	1.45
Ovarian	2	2.90
Cervical	1	1.45

Table IV: Site of Ectopic in Patients with Ectopic Pregnancy

Treatment	Number of Cases	Percentage
Total salpingectomy	55	79.71
Partial salpingectomy	2	2.90
Salpingectomy + Oophorectomy	8	11.59
Cornuectomy	2	2.90
Hysterectomy	2	2.90

Table V: Treatment Modalities of Ectopic Pregnancy

DISCUSSION: The rate of ectopic pregnancy has followed an increasing trend during the last three decades throughout the world.^{1,4} The incidence of ectopic pregnancy in the present study was 3.73 per 1000 pregnancies. Incidence of 5.94 per 1000 pregnancies was reported by Srilakshmi A et al.⁵ The comprehensive data on ectopic pregnancy rates reported by CDC is 27.2/1000 pregnancies⁶. Arup Kumar et al., reported incidence of 0.6%.¹

The highest incidence of ectopic pregnancy in the present study was in the age group of 20-25 years. Manohar R et al., reported that majority of cases in the age group of 20-30 years.⁷ Rashmi et al., had similar findings.⁸ Srilakshmi A et al., noted highest incidence of ectopic pregnancies between 21 to 23 years.⁵ Sreelakshmi U observed that majority of ectopic pregnancy were primigravida.⁹ whereas Srilakshmi A et al., reported highest incidence in multigravida.⁵ Majority of cases in our study were second and third gravidae.

The commonest risk factor in our study was pelvic inflammatory disease. Manohar R et al., reported that 35.48% of cases common risk factor was post tubectomy⁷, whereas other study quoted pelvic inflammatory disease as major risk factor.⁹ The symptoms at presentation were abdominal pain with missed periods in all cases (100%), while vaginal bleeding was seen in 21.74% of cases, 30.43% of cases presented with signs and symptoms of shock.

Significant clinical signs were lower abdominal tenderness, cervical movement tenderness and pallor. This is in keeping with similar studies reported.^{10,11,12} Any woman in reproductive age presenting with unexplained pallor or collapse with or without history of amenorrhoea should be presumed to have an ectopic pregnancy until proved otherwise.^{13,14}

In this study all cases had ruptured ectopic with none presenting to the hospital before appearance of symptoms. This is in consonance with findings from developing countries where 75-90% of cases are ruptured at a presentation.^{2,15} To establish the diagnosis we depended on history, clinical signs and symptoms, urine pregnancy test, abdominal USG, paracentesis abdominis and culdocentesis. Abdominal paracentesis and culdocentesis are unreliable in early unruptured or in tubal abortions with slow leak.

Fallopian tube was the commonest site of ectopic gestation in our study with 63.77% ampullary, 20.29% isthmic, 5.80% fimbrial and 1.45% interstitial. In most of the studies, the ampulla was commonest site, which is similar to our finding. Laparotomy was performed for all the cases, as it was the only surgical intervention for management of ruptured ectopic with massive haemoperitoneum though some patients were clinically stable.

In the present study unilateral salpingectomy was performed in 79.71% of cases, which is similar to Udigwe G.O. et al., (76.3%).¹⁶ 11.59% cases in our study had salpingo-oophorectomy as compared with 6.7% reported by other study.¹⁷ The only indication for removal of ipsilateral ovary along with tube was when it was diseased or involved in ectopic complex in which haemostasis was best achieved by excising it.

For cervical pregnancy and interstitial pregnancy hysterectomy was done to control the haemorrhage. In our study the incidence of recurrent ectopic was 2.90% as compared to 9.67% reported by Manohar R et al.⁷ We had no maternal mortality in our study. Srilakshmi A et al., reported maternal deaths at 1.8%.⁵

CONCLUSION: Ectopic pregnancy remains a major gynaecological problem with considerable morbidity and mortality if diagnosis and management is delayed. Pelvic inflammatory disease secondary to unsafe abortions and STD should be promptly treated. Health education and liberal use of contraceptives should be advocated. Women should be encouraged to visit a health centre after a missed period for early diagnosis of an ectopic pregnancy and prompt conservative medical management.

BIBLIOGRAPHY:

1. Arup K. M., Niloptal R., Kakali S. K., Pradip K. B. Ectopic Pregnancy an analysis of 180 cases. *Journal of the Indian Med Assoc* 2007; 105: 308-14.
2. Igbarese G. O., Ebeigbe P. N., Igbekoyi O. F., Ajufoh B. I. Ectopic Pregnancy a 11 year review in a tertiary centre in the Niger Delta. *Trop Doct* 2005; 35: 175-7.
3. Gharoro E. P., Igbafe A. A. Ectopic Pregnancy revisited in Benin City: Analysis of 152 cases. *Acta Obstet Gynaecol Scand* 2002; 81(12): 1139-43.
4. Rajkhowa M., Glass M. R., Rutherford A. J., Balen A. H., Sharma V., Cuckle H. S. Trends in the incidence of ectopic pregnancy in England and Wales from 1966-1996. *BJOG* 2000; 107(3): 369-74.
5. Srilakshmi A., Baleswari G., Rajeswari P. Ectopic pregnancy: A clinical study in a tertiary institute. *J of Evolution of Med and Dent Sci* 2015; 4 (14): 2326-2329. 7.
6. Centres for Disease Control and Prevention (CDC). Ectopic pregnancy mortality-Florida, 2009-2010. *MMWR Morb Mortal Wkly Rep* 2012 Feb 17; 61(6): 106-9.
7. Manohar R, Kavyashree G, Lalitha Shivanna. Retrospective study of ectopic pregnancy in a teaching hospital. *J of Evolution of Med and Dent Sci* 2014; 3 (63): 13817 - 13822.
8. Rashmi A, Gaddagi, Chandrasekhar AP. A clinical study of ectopic pregnancy. *Journal of Clinical and Diagnostic Research*, 2012. *JCDR/2012/4015-2214*.
9. Sreelakshmi U, Pramila Pandey, Shreedhar Venkatesh. The outcome of ectopic pregnancy - A tertiary care hospital experience *J of Evolution of Med and Dent Sci* 2014; 3 (21): 5775 - 5780.
10. Aboyeji AP, Fawole AA, Ijaya MA. Trends in ectopic pregnancy in Ilorin, Nigeria. *The Nigerian Journal of Surgical Research*. 2002; 4: 6-11.
11. Douglas CP. Tubal ectopic pregnancy. *Br med J* 1963; 2: 838-841.
12. Sotubo O, Aboyeji. AP. Ectopic pregnancy in Ilorin, Nigeria a five year review. *Nigerian Medical practitioner* 1994; 27: 25-27.
13. Sara HG. Early Pregnancy Risks. In: Alan, HD, Lauren, N (ed). *Current Obstetrics and Gynaecologic Diagnosis and Treatment*. 9th edition. New York. McGrawHill 2003: 278 - 283.
14. Ekele A. Ectopic Pregnancy. In: Friday O. Kunle O (ed). *Contemporary Obstetrics and Gynaecology for developing countries*. Benin: Women's Health and Action research center. 2003. 66-72.
15. Poonam Y., Uprety D., Banerjee B. Ectopic Pregnancy - two years review from BPKIHS, Nepal. *Kathmandu University Med J* 2005; 3: 365-9.
16. Udigwe G. O., Umeononihu O. S., Mbachu I. I. Ectopic Pregnancy: A 5 year review of cases at Nnamdi Azikiwe University teaching hospital (NAUTH) Nnewi. *Niger Med J* 2010;51(4): 160-163.
17. Panti A, Ikechukwu NE, lukman OO, Yakubu A, Egundu SC, Tanko BA. Ectopic pregnancy at Usmanu Danfodiyo University Teaching Hospital Sokoto: A ten year review. *Ann Nigerian Med* 2012;6:87-91.