

# Ectopic Pregnancy at Shaikh Zayed Hospital

A retrospective study of one year (August 1989 to August 1990)

FALAK NAZ, MOHAMMAD SAEED

Department of Obstetric and Gynaecology, Shaikh Postgraduate Medical Institute, Lahore

## SUMMARY

*Eight patients of age group 20-30 years were admitted at Shaikh Zayed Hospital (SZH) with variable presentation. Out of these eight patient four patients presented with history of amenorrhoea, two with irregular bleeding and two with mass in the iliac fossa. All patients gave history of pain lower abdomen while history of nausea, vomiting and fainting attack were found only in one patient. Risk factors were present in six out of eight patients. Ultrasonography (USG), culdocentesis and laparoscopy were the diagnostic methods used. Partial salpingectomy was done in all cases except one where salpingo-oophorectomy was done.*

## INTRODUCTION

Ectopic pregnancy is the consequence of the implantation of a fertilized ovum outside the endometrial cavity. Majority of the cases occur in the fallopian tube. Rare sites reported in the literature are ovaries, abdomen, cervix and cornua of the uterus. Number of risk factors have been blamed to be responsible for its increased incidence. These include age<sup>1</sup> pelvic infections, post operative tubal damage<sup>2,3</sup>, intra uterine contraceptive devices (IUCDs) and tubal surgery. The clinical picture may be acute, silent or subacute. In the past majority of the presentation were acute due to delayed diagnosis. Now a days early suspicion and early diagnosis have changed the clinical presentation. The latest diagnostic aids like radioimmunoassay of serum Beta-HCG, sensitive urinary pregnancy test, ultrasonography, serum progesterone level and diagnostic laparoscopy have revolutionized the management because of early diagnosis.

This retrospective study was done to review the mode of presentation, diagnostic work up, risk factors and outcome in patients with ectopic pregnancy seen at Shaikh Zayed Hospital.

## MATERIAL AND METHODS

Eight patients who were found to have ectopic pregnancy were included in the study conducted

between August 1989 and August 1990. The case histories of these patients keeping in mind their age, parity, social status, mode of presentation, physical signs and the diagnostic methods used were reviewed. The risk factors, the result of the investigations, surgical interventions done were also evaluated.

## RESULT

Total number of patients included in the study was eight. The common age group at risk found to be between 20-30 years as shown in Table 1. The parity of these patients is depicted in Table 2. Four out of eight patients had one child. Two had three children and the other two were grandmultipara. Table 3 shows the social status. It is obvious that the disease is more common in the middle class people.

Table 1: Age Distribution.

15-20 Years	21-25 Years	26-30 Years	31-35 Years	36-40 Years	> 40 Years

Types of presentation are shown in Table 4. Four out of eight patients presented in emergency state after rupture of ectopic pregnancy while three patients were diagnosed very late. The presenting symptoms were also analysed. Pain was present in

all the patients. History of amenorrhea was given by four patients while irregular bleeding per vaginum was the presenting complaints in two patients. Only one patient out of eight gave history of nausea, vomiting and syncope along with other symptoms. Similarly the physical signs were also reviewed. Lower abdomen tenderness was present in four patients. Adnexal mass was found in three patients, cervical excitation was elicited in two patients and signs of peritonism were demonstrated in two patients along with other physical signs. Pyrexia was recorded only in one patient.

Table 2: Parity.

0	1	2	3	4	5	6	More than 6
-	1	-	2	-	-	1	1

Table 3: Social class.

Class 1	Class 2	Class 3	Class 4
1	3	3	1

Table 4: Type of presentation.

Silent	Acute	Subacute
1	1	3

Table 5: Risk factor.

Pid	Induced Abortion	Post Partum spepsis	lucd	Laparo Scopic Sterilization	Previous Ectopic	Abdominal Surgery	Idio Pathic
2	2	0	2	0	0	0	2

The risk factors found in these patients are shown in the Table 5. Out of eight patients only two patients have no significant history of risk factors. The methods used for diagnosis were full blood count, urine analysis, culdocentesis, laparoscopy and laparotomy. Out of these laparoscopy was done in

three cases and was confirmative in all the three cases. Ultrasonography was also done in three patients. Only one patient was suspected to have ectopic pregnancy while in other two cases ultrasonography was not conclusive. Culdocentesis was done in two patients and it was positive in both patients. Serum Beta-HCG and sensitive urinary pregnancy test were not done in any case. Out of these patients four patients were diagnosed clinically and were later confirmed by the above mentioned diagnostic aids.

During the study the methods of treatment were also analysed. Out of eight patients, seven were treated with partial salpingectomy while one patient had salpingo-oophorectomy because of involvement of that ovary.

## DISCUSSION

Ectopic pregnancy is grave obstetrical emergency and has a mortality rate of about 10% even in developed Countries. Its incidence is increasing throughout the World<sup>1-15</sup>. This increase has been attributed to increased use of intrauterine contraceptive devices<sup>16</sup>, venereal diseases, pelvic inflammatory diseases tubal surgery for infertility<sup>17</sup>, Sterilization<sup>18,19</sup>, past conservative surgery for ectopic pregnancy and legalization of abortion.

Our study has also revealed the same type of risk factors. Beral Weekes and Schreider have reported in their studies that the ectopic pregnancy increases with the increasing age and higher incidence is found in late twenties and older<sup>4</sup>. The age group of our patients was almost the same. Conflicting reports have been given regarding the parity. Some investigators relate ectopic pregnancy with nulliparity<sup>20,21</sup> while others found higher incidence amongst multipara. Different variety of parity was found in our patients. Fifty percents of our patients had one child twenty five percents were para three and twenty five percent of our patients were grand multipara. Majority of the ectopic pregnancies occur in tubes. The ampulla is the most common tubal location. All of our cases showed tubal pregnancy. In chronic ectopic it was difficult to pin point the exact site of tube because of mass formation. Ectopic pregnancy has variable presentation.

The commonest symptom reported in literature is pain abdomen. No specific type of pain is diagnostic of ectopic pregnancy as the pain may be



diffused, bilateral or contralateral. Amenorrhoea is the next common symptom which is present in 75-95% of cases. Irregular bleeding is noted in 50-80 percents of patients. Other symptom like nausea, vomiting, breast tenderness is found in 10-25 percent of cases.

The presenting symptoms in our patients were similar. Pain abdomen was complained by all the patients. Amenorrhoea was present in 50% of the cases, while irregular bleeding was present in only 25% of cases. Ectopic pregnancy is not easy to diagnose clinically. The accuracy of puerly clinical diagnosis is 50%. It is therefore essential to back up the diagnosis with investigations. Traditional methods used were.

1. History
2. Physical examination
3. Full blood count.
4. Urinary pregnancy test.
5. Culdocentesis.
6. Culdoscopy.
7. Endometrial histology.

These methods were not very helpful. The full blood count when compared with the cases of acute salpingitis was found to be similar except for Erythrocyte Sedimentation Rate (ESR). Similarly pregnancy test has high false negative rate. Culdocentesis has long been considered a mainstay in the diagnosis of ectopic pregnancy, is no longer used in the diagnosis of ectopic pregnancy. As the diagnostic tests have improved, there has been a shift in recent years to a greater preponderance of unruptured ectopic pregnancies at the time of diagnosis.

With a diminishing percentage of ruptured ectopic pregnancies, the incidence of haemoperitoneum is decreasing and the value of culdocentesis is lessening. Romero et al concluded, "The patient who will benefit the most from culdocentesis is the one with the clinical suspicion of ectopic pregnancy who presents at a time when expeditious diagnosis is desired and sophisticated diagnostic modalities such as ultrasound or sensitive HCG assay cannot be obtained without sufficient delay". With the widespread use of rapid sensitive urine pregnancy tests and increasing availability of ultrasound the clinical value of culdocentesis is decreasing. Now a days the latest reliable methods of diagnosis are:-

1. Radioimmunoassay of serum Beta HCG<sup>22</sup>.
2. Sensitive urinary pregnancy test. Nordenskjold et al reported a 96% sensitivity for the diagnosis of ectopic pregnancy<sup>23</sup>.
3. Transvaginal USG.
4. Serum progesterone<sup>24</sup>.
5. Laparoscopy. Efficacy 90% False positive rate is 5%<sup>25</sup>.

The diagnostic aids used at SZH were the traditional one. Therefore the diagnosis was missed in 50% of the patients. The picture in them was confused with acute appendicitis, ruptured corpus luteal cyst, Pelvic Inflammatory Disease (PID). Serum Beta-HCG and sensitive urinary pregnancy test which have higher sensitivity rate have not yet been installed in our hospital, therefore the diagnosis was missed. Because of the early diagnosis before the rupture the operative procedures have also changed. Salpingostomy is now considered by many to be the conservative treatment of choice specially where fertility is concerned. It also has low risk of repeat ectopic and better subsequent chance of term pregnancy<sup>26</sup>. When salpingostomy is not possible partial or complete salpingectomy is the next line of management which was done in all of our cases except one where ipsilateral ovary was also sacrificed because it was badly involved. Salpingectomy was done in our cases because almost all patients who were included in the study presented late therefore salpingostomy was not possible.

## REFERENCES

1. **Tatum HJ, et al.** Management and outcome of preg. Practices and extrauterine preg: a realistic perspective. *Fertil Steril* 1977; **28**: 407.
2. **Siegler AM.** Surgical treatment for tuboperitoneal causes of infertility since 1976. *Fertil Steril* 1977; **28**: 1019-24.
3. **Hasselhorst G.** Die Ektopische Schwang - Gerschaft In: **Seitz L. Amreich Al. eds.** *Biologic und pathologic des Weibes vol 9.* Berlin: Urban and Schwarzenberg, 1963; 631-40.
4. **Beral V, Robinson N.** Risk of Ectopic pregnancy. *Lancet* 1979; **(i)** 1247-8.
5. **Ory HW.** Women's health study: Ectopic preg & IUD new perspectives. *Obstet Gynaecol* 1981; **53**: 137-44.
6. **Westrom et al.** Incidence, trends and risk of ectopic pregnancy in a population of women. *Br Med J* 1981; **282**: 15-8.
7. **Budnick LD, Pakter J.** Ectopic pregnancy in New York city, 1975-80. *Am J Publ Hlth* 1982; **72**: 589-584.
8. **Rubin GL, Cates W Jr, Gold J, et al.** Fatal ectopic pregnancy after attempted legally induced abortion *JAMA* 1980; **244**: 1705.

9. **Glebatis DM, Janerich DT.** Ectopic pregnancies in upstate New York. *J Am Med Assoc* 1983; **249**: 1730-5.
10. **Barnes BB, Roys Yee B, et al.** Reliability of urinary pregnancy tests in the diagnosis of ectopic pregnancy. *J Reprod Med* 1985; **30**: 827.
11. **Strathy et al.** Incidence of ectopic pregnancy in Rochester, Minnesota. 1950-1981. *Obstet Gynecol* 1984; **65**: 37-43.
12. **Mackay HT, Hughes JM, Hogue CR.** Ectopic pregnancy in United States 1979-80. *MMWR CDC Surveill Summ* 1984; **33**: 155-755.
13. **Hockin JC, Gersamine AG.** Treens in Ectopic Pregnancies in Canada. *Can Med Assoc J* 1984; **131**: 737-40.
11. **Meirik O.** Ectopic pregnancy during 1961-1978 in Uppsala County Sweden. Impact of demographic factors on overall incidence. *Acta Obstet Gynaecol Scand* 1981; **60**: 545-8.
15. **Beral V.** An epidemiological study of recent trends in ectopic pregnancy. *Br J Obstet Gynecol* 1975; **82**: 775-82.
16. **Landesman R, Continoho LM, Sexana BB.** Detection of human chorionic gonadotrophin in blood of regularly bleeding women using copper intrauterine contraceptive device. *Fertil Steril* 1976; **27**: 1062.
17. **Boyd IE, Holt EM.** Tubal sterility. patency tests 7 results of operation. *Br J Obstet Gynaecol* 1973; **80**: 112.
18. **Chakravarti S, Sharelow R.** Tubal pregnancy after sterilization. *Br J Obstet Gynaecol* 1975; **82**: 58.
19. **Drake PH.** Ectopic pregnancy following sterilizaion. *Br J Clin Pract* 1966; **20**: 269.
20. **Bobron ML, Bell HG.** Ectopic pegnancy: a 16 year survey of 905 cases. *Obstet Gynaecol* 1962; **20**: 500.
21. **Blanchet J et al.** Ectopic pregnancy -a statistical review of 360 cases. *Can Med Assoc J* 1967; **96**: 71.
22. **Seppala M, Ranta T, Toniti K, et al.** Improved diagnosis of ectopic pregnancy related gynaecological emergencies by rapid human chorionic gonadotrophin B Subunit assay. *Br J Obstet Gynaecol* 1986; **88**: 138.
23. **Nordenskjold F, Ahlgren M, Erreth L, et al.** A sensitive urine pregnancy test as an aid in the diagnosis of ectopic pregnancy. *Fertil Steril* 1985; **43**: 748.
21. **Mulwidsky A, Segar S, Menasbe M, Adori A, Palti A.** Corpus luetum in Ectopic pregnancy. *Int J Fertil* 1984; **29**: 211-7.
25. **Gonzales FA, Waxman M.** Ectopic pregnancy. *Diagn Gynaecol Obstet* 1981; **3**: 101-9.
26. **Decherney AH, Maheux R.** Modern management of tubal pregnancy Current problems in obstetrics and gynaecology 1983; 6.

**The Authors:**

Falak Naz,  
 Medical Officer,  
 Department of Obstetric and Gynaecology,  
 Shaikh Postgraduate Medical Institute,  
 Lahore.

Mohammad Saeed  
 Professor,  
 Department of Obstetric and Gynaecology,  
 Shaikh Postgraduate Medical Institute,  
 Lahore.

**Address for Correspondence:**

Falak Naz,  
 Medical Officer,  
 Department of Obstetric and Gynaecology,  
 Shaikh Postgraduate Medical Institute,  
 Lahore.