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Research Article

Ectopic pregnancy: a diagnostic dilemma

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ABSTRACT

Background: To study the etiology, varied clinical presentations and misdiagnosis in ectopic pregnancy.
Methods: A retrospective analysis of all operated ectopic pregnancies over a 7 year period at Government Medical College & hospital, Chandigarh was done. Details of clinical findings and misdiagnosis were noted. Surgically confirmed cases were included in this study. Expectant management and Medical management cases were excluded in this study.
Results: Two hundred eighty two cases of ectopic gestation were analyzed. Identifiable risk factor present in 221 cases (78.3%). Pain was the commonest presenting symptom and 78 cases (27%) were misdiagnosed before the correct diagnosis was made by our department.
Conclusions: Ectopic pregnancy can have varied presentations and misdiagnosis can be seen in Surgical, Medical and Gynaecology Departments. A young female with amenorrhea, pain abdomen with or without vaginal bleeding in early pregnancy diagnosis of ectopic pregnancy must be kept in mind. Early diagnosis would help early intervention and thus reduce the morbidity.

Keywords: Ectopic pregnancy, Misdiagnosis

INTRODUCTION

Over the last few decades, the incidence of ectopic pregnancy has increased almost to the extent of an epidemic disease. Ectopic pregnancy is one of the commonest acute abdominal emergencies.[1,2] The risk of death from an ectopic pregnancy is 10 times greater than that for an induced abortion.[3] Clinical manifestations may be diverse and diagnosis of this condition is often mistaken and delayed leading to increased morbidity and even mortality in these patients. We present an analysis of all cases of ectopic pregnancy surgically managed at our hospital over a period of seven years with the aim to see the risk factor for ectopic pregnancy, clinical presentations and diagnostic difficulties in 282 ectopic pregnancies.

METHODS

Detailed retrospective analysis of all the patients diagnosed to have ectopic pregnancy over a period of seven years was made. A total of 282 patients were managed surgically in the department of Obstetrics & Gynaecology of Government Medical College & Hospital, Chandigarh from April 1998 to April 2005.

Primary outcome measured in this study was to find out percentage of misdiagnosis of ectopic pregnancy as it is commonly occurred and whether misdiagnosis were more prevalent if the patient report to the doctor other than Gynaecologist.

Secondary outcome was to find out clinical findings, presenting symptom, risk factors for ectopic pregnancy.

Patients presenting in Medical and surgical departments with different diagnosis were noted.

Diagnosis was made by urine pregnancy test and Ultrasound. Surgically confirmed cases were included in this study. Expectant management and Medical management cases were excluded in this study.

RESULTS

Two hundred eighty two cases of ectopic gestation were analyzed during a period of seven years. It was a retrospective study conducted in a university teaching hospital (Government Medical College & Hospital, Chandigarh). A detailed note was made of the past, obstetric, menstrual and medical history. Emphasis was laid on any previous health check up and the diagnosis made at that centre before reaching our institute. Presenting symptoms, pelvic examination and operative findings were noted.

Maximum number of the patients was in the age group of 26-30 years (32.62%) but the age ranged between 20-45 years (Table 1).

Table 1: Ectopic pregnancy in relation to age of patient.

Age in years	No. of cases	% age
< 20	31	10.99 %
< 21 - 25	85	30.14 %
26 - 30	92	32.62 %
31 - 35	53	18.79 %
36 - 40	12	4.20 %
> 40 years	09	3.19 %

Identifiable risk factors like previous history of tubal ligation, induced or spontaneous abortion, intrauterine contraceptive device use, pelvic inflammatory disease, history of infertility, previous ectopic pregnancy, previous abdominopelvic surgery and pelvic tuberculosis were seen in 221 cases viz. 78.37% (Table 2).

Misdiagnosis and delayed diagnosis was seen in 78 cases (27.58%). These patients were seen once or twice by a doctor before the correct diagnosis was made in our department. These patients presented in different departments like Medicine and Surgery with varied complaints.

Out of the 282 cases analyzed, 231 (81.91%) presented in Gynaecology OPD and emergency department, 38 (13.47%) in Surgery and 13 (4.60%) in Medicine. Of the 38 cases presenting in the Surgery department, 31 were misdiagnosed as appendicitis, urinary tract infection, cholecystitis, ureteric or renal colic, peritonitis, intestinal obstruction, colitis, pancreatitis etc. In patients presenting in medicine emergency all the 13 were misdiagnosed as gastroenteritis gastritis, pancreatitis etc. (Table 3 & 4).

Table 2: Risk factors in patients of ectopic pregnancy.

Risk factors	No. of patients	% age
No. identifiable risk factors	61	21.63 %
Tubal ligation	17	6.2 %
Intrauterine contraceptive device	31	10.99 %
H/o Infertility	62	21.98 %
H/o previous abortion	84	29.78 %
Spontaneous	32	11.34 %
Induced	52	18.43 %
Previous abdomino-pelvic surgery	33	11.70 %
H/o Pelvic inflammatory disease / Tuberculosis	08	2.83 %
Previous ectopic pregnancy	04	1.41 %
ART	01	0.35 %
Multiple Risk factors	34	12.5 %

Table 3: Patients presenting in medical and surgical departments with different diagnosis.

Department	Total number of patients	Percentages
Medicine	13	4.6 %
Gastroenteritis	08	2.83 %
Gastritis	02	0.70 %
Pain abdomen	02	0.70 %
Pancreatitis	01	0.35 %
Surgery Department	38	13.47 %
Ectopic pregnancy	07	2.48 %
Appendicitis	07	2.48 %
Urinary tract infection	02	0.70 %
Pain abdomen	03	1.06 %
Pancreatitis	01	0.35 %
Cholecystitis	04	1.41 %
Ureteric / renal colic	04	1.41 %
Colitis	03	1.06 %
Internal obstruction	03	1.06 %
Peritonitis	04	1.41 %

Out of the 231 cases presented to the Gynecology Department 69 (24.46%) patients were referred to our institute.

Urine for pregnancy test was positive in all cases except two who had chronic ectopic pregnancy.

Out of these 69 referred patients 35 (12.41%) were sent with the correct diagnosis whereas in 34 cases misdiagnosis were made in the form of threatened abortion, incomplete abortion, complete abortion, missed

abortion, appendicitis, peritonitis, pelvic inflammatory disease, urinary tract infection, dysfunctional uterine bleeding and placenta praevia (Table 4).

Table 4: Patients presenting in Gynecology departments with different diagnosis.

Gynecology departments	No. of patients	% age
Total No. of cases	231	81.91 %
a) Direct	162	57.03 %
b) Referred	69	24.46 %
i) Ectopic pregnancy	35	12.41 %
ii) Misdiagnosis	34	12.05 %
a) Threatened	12	4.25 %
b) Incomplete	07	2.48 %
c) PID	05	1.7 %
d) Peritonitis	02	0.70 %
e) Urinary Tract Infection	02	0.70 %
f) Appendicitis	02	0.70 %
g) Placenta praevia	01	0.35 %
h) Complete abortion	01	0.35 %
i) Dysfunctional Uterine Bleeding	01	0.35 %
j) Missed abortion	01	0.35 %

As far as symptomatology were concerned Pain was the commonest presenting symptom (92.90%) followed by amenorrhoea (78.72%) and irregular vaginal bleeding in 71.98% cases. Nausea and vomiting were seen in 53% cases. Syncopal attacks were seen in 40% patients. Abdominal tenderness was seen in 53.90% patients followed by vaginal tenderness in 57.80% cases, 46.80% had an adnexal mass, 9.92% cases came in shock (Table 5).

Table 5: Patients presented with different clinical features.

Symptoms	No. of patients	% age
Amenorrhoea	222	78.72 %
Pain abdomen	262	92.90 %
Bleeding	203	71.98 %
Vomiting	141	50 %
Fainting attack	115	40.78 %
Signs		
Adnexal mass	132	46.80 %
Cervical excitation	163	57.80 %
Abdominal findings	152	53.90 %
Shock	28	9.92 %

DISCUSSION

Ectopic pregnancy is an increasingly common and potentially catastrophic condition. Misdiagnosis of ectopic pregnancy is quite common .Delayed diagnosis may endanger the life of the patient but also decreases later the likelihood of a future successful pregnancy.[4]

There are a very few other disorders in obstetrics that has so many different presentations. The presentation of the patient may vary, some with minimal symptoms to a patient in a state of shock with massive haemoperitoneum. Some may present as a case of mass abdomen as in chronic ectopic. Vasomotor symptoms causing vertigo and syncope may be the presenting complaint.[3,4]

Brenner and associate in 1980 reported that of 300 women with ectopic pregnancy, approximately 1/3 had been seen once and 11% twice before the correct diagnosis was made.[5] Same was the experience with us. Twenty seven percent had been seen earlier and were misdiagnosed before the correct diagnosis was made. In spite of all available modern diagnostic facilities diagnosis was missed in 78 (27%) cases of which 34 were missed by gynecologist seen outside. There are more chances of misdiagnosis if the patient presents to the department other than Gynecology & Obstetrics. There should be a high index of suspicion for this condition in patients of reproductive age group presenting with pain and irregular bleeding per vagina. History of amenorrhea may not be there in 20 - 25% of the cases as was seen in our study also. For the above reasons the patient may not always come to a Gynecologists, she may visit a physician or a general surgeon as the symptoms are so varied.

Common causes of ectopic pregnancy in our study were previous history of abortion and infertility but there could be no identifiable risk factor in 21% of cases. These findings are also similar with the study done by Ankum et al.[6]

CONCLUSIONS

Misdiagnosis of ectopic pregnancy is very frequent especially if the patient present in any department other than Gynecology leading to delay in diagnosis.

A young female with amenorrhea and pain abdomen with or without vaginal bleeding comes in emergency Department diagnosis of ectopic pregnancy must be kept in mind.

High index of suspicion and a simple urine pregnancy test (ELISA) and if facilities are available, a transvaginal ultrasound can diagnose most of the cases. Early diagnosis would help early intervention and thus reduce the morbidity.

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