

Different Pattern of Presentation of Ectopic Pregnancy and its Management

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ABSTRACT

Objective To determine the clinical presentations and the management options for ectopic pregnancy.

Study design Descriptive study.

Place & Duration of study Department of Obstetrics and Gynecology Liaquat National Hospital Karachi, from 13th August 2011 to 12th August 2012.

Methodology A total of 40 cases diagnosed with ectopic gestation were included in this study. Information was retrieved from the case notes and labor ward registers. The data was analyzed with simple descriptive statistics.

Results During the study period the total number of gynecological admissions were 1126 and 1618 deliveries conducted. Forty patients had ectopic gestations accounting for 2.4% of all deliveries and 3.5% of all gynecological admissions. The peak age group was 20-30 year (62.5%); 95% (n=38) were married. Cases of ectopic pregnancy found more in primigravida 45% (n=18) patients. Abdominal pain was the most common presenting symptom in 92.5% (n=37) of patients whereas history of amenorrhea present in 75% and vaginal bleeding was found in 45% of patients.

Commonest clinical sign was cervical excitation present in 82%. Identifiable risk factors were present in 52.5% of cases, the most frequent being previous miscarriages in 22.5%. Surgical management was done in 95% patients while 5% managed medically. Ruptured ectopic pregnancy was seen in 85%. Tubal ectopic pregnancy was present in 92.5% (n=37), ovarian 2.5%, and heterotopic pregnancy in 2.5%. Salpingectomy was performed in 89% while salpingotomy done in 7.8% cases. Hysterectomy was done in one patient. Blood was transfused in 75% (n=30) patients. There was no maternal death related to ectopic pregnancy.

Conclusions Ectopic pregnancy was found more in primigravida. Abdominal pain was the single most consistent feature of ectopic pregnancy. Most cases presented late making tubal conservation treatment inapplicable.

Key words Ectopic pregnancy, Salpingectomy, Fallopian tube conservation.

INTRODUCTION:

Ruptured ectopic pregnancy continues to be a common life threatening emergency. Ectopic

pregnancy (EP) is defined as a pregnancy in which the implantation of the fertilized egg occurs outside the uterine cavity. More than 95% of ectopic pregnancies occur in fallopian tubes followed by ovary, cervix, cornual end of uterus and abdominal cavity.¹ Moreover the cesarean scar is recently identified as a nidus for ectopic gestation.² It presents as an acute emergency and a life-threatening event that can lead to maternal death.³

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Worldwide around 10-15% of maternal deaths in

first trimester are contributed by ectopic pregnancy.¹ Ectopic pregnancy is a global problem and has shown a rising incidence during the last 3 decades the world over.⁴⁻⁶ In Pakistan the reported incidence has been cited as 1:112 to 1:130 but the actual figures are not known.⁷

The increase in EP is associated with increase in pelvic infections, advances in assisted reproductive technology, tubal surgeries and sterilizations, use of intrauterine devices and earlier diagnosis with more sensitive methods of cases that otherwise would have resolved without causing any symptom.^{4,6,8} In developing countries diagnosis and interventions are delayed.

The purpose of this study was to look into the predisposing factors, presentations, treatment offered and the outcome of all the diagnosed cases of ectopic pregnancies in tertiary care teaching hospital with a view to suggest interventions which would decrease the morbidity and mortality.

METHODOLOGY:

This was a retrospective/descriptive study of ectopic pregnancies at Liaquat National Hospital Karachi from 13th August 2011 to 13th August 2012. The case notes of the patients with ectopic pregnancy were traced. The labor ward register was used to ascertain the total number of deliveries for the same period. Information on the biosocial data, clinical symptoms and signs, diagnostic tools employed, sites and treatment options, risk factors for the disease as well as associated morbidity and mortality were extracted. All the surgeries were by open laparotomy under general anesthesia. The data was analyzed with simple descriptive statistics using percentages.

RESULTS:

In one year review period, there were a total of 1618 deliveries, 1126 gynecological admissions and 40 ectopic gestations recorded. This gives a frequency EP of 2.4% of total deliveries and 3.5% of gynecological admissions. The majority of patients were of 20 - 30 year (n= 25, 62.5%). Married women accounted for 95% (n=38) of all cases. It was noted more in primigravida (n=18 - 45%). Details are given in table-I.

In patients of ectopic pregnancy risk factors were identified in 21(52.5%) patients (table II). Symptoms and signs are given in table III.

Ectopic pregnancy was found to be ruptured in 85% of cases and majority of cases were in tubal region (n=37 - 92.5%) mainly in ampullary region (n=27 - 72.9%). Isthmus ectopic was present in 7 (18.9%),

cornual end ectopic in 3 (8.1%), ovarian ectopic in one (2.5%) while heterotopic pregnancy in one patient. Scar ectopic pregnancy was found in one patient who was diagnosed as a case of missed miscarriage. All cases were diagnosed by serum beta HCG test and transvaginal ultrasound.

Medical management was done in 2 (5%) case while 38 (95 %) patients treated surgically. Salpingotomy was done in 3 patients In one of them there was history of previous ectopic pregnancy related salpingectomy while in other case there was ectopic pregnancy along with adhesiolysis related salpingectomy. Salpingectomy was done in 34 (85%) cases. Hysterectomy done in one case because this was a scar ectopic and diagnosed as a case of missed miscarriage During evacuation uterine perforation was suspected. Laparotomy was done and scar ectopic found. Hysterectomy was done due to uncontrolled bleeding. Blood was transfused in 30 (75%) patients. Maximum transfusions was 6 units blood. There was no mortality in this series.

Table I: Demographic Characteristics of Patients

Age (Year)	No. of Patients	Percentage
20-30	25	62.5
31-40	14	35
>40	01	2.5
Martial Status		
Married	38	95
Unmarried	02	5
Parity (n)		
0	18	45
1-2	12	30
3-4	07	17.5
>4	03	7.5

DISCUSSION:

Ectopic pregnancy remains an important cause of morbidity and mortality in early pregnancy. The rate of ectopic pregnancy has followed an increasing trend during the last three decades throughout the world.⁴ Globally, the reasons for the rising trend are thought to include earlier diagnosis of cases that would otherwise have resolved on their own. This is due to availability of more sensitive methods such as hormonal tests, transvaginal ultrasound and laparoscopy.^{3,7}

Table II: Identifiable Risk Factors

Risk Factors	n=21	52.5%
Previous Miscarriage	9	22.5%
Infertility Treatment	4	10%
Previous Ectopic pregnancy	2	5%
Previous Cesarean Section	2	5%
Tubal Ligation	2	5%
Pelvic Inflammatory Disease	2	5%

Table III: Symptoms and Signs

Symptoms	No. of Patients	Percentage
Abdominal Pain	37	92.5
Amenorrhea	30	75
Vaginal Bleeding	18	45
Syncope	10	25
Nausea and Vomiting	9	22.5
Shoulder Tip Pain	7	17.5
Vertigo	6	15
Signs		
Cervical Excitation	33	82.5
Right Fornix Tenderness	16	40
Left Fornix Tenderness	9	22.5
Both Fornix Tenderness	6	15
Anemia	21	52.5

The incidence of ectopic pregnancy was 9.5% as reported by Igbafe.⁹ In our study the frequency was 2.4%. The current incidence of ectopic pregnancy is difficult to estimate from available data because inpatient hospital treatment of ectopic pregnancy has decreased and multiple health care visits for a single ectopic pregnancy have increased.¹⁰ Furthermore, since the incidence is expressed as the number of ectopic pregnancies/1000 pregnancies, the denominator is difficult to determine accurately as early pregnancy failures that do not result in delivery or hospitalization, are often not counted.

The peak age incidence was 20-30 year in our study which is consistent with the findings by other researchers.^{4,9,11} This corresponds to the age of reproduction and peak sexual activity.

It is more common in the first and second pregnancies. It is not surprising as this may be explainable by the fact that major risk factors of previous miscarriages precede the ectopic pregnancy. Most of the time no predisposing factor leading to ectopic pregnancy can be identified. This is because investigations to do so are not available. In our study no causative factor was found in 47.5% of the patients as also noted in another study.¹²

About 85% of patients present with rupture ectopic pregnancy with none of them diagnosed before the appearance of symptoms. This is similar to findings from the developing countries where 70% to 95% of cases are ruptured at presentation.^{9,10} On the other hand, a combination of serum beta-HCG, transvaginal sonography and laparoscopy lead to early detection in developed countries.^{13,14} In our centre however laparoscopy was not used. Culdocentesis was used by Nayama et al.¹⁵ Paracentesis abdominis, a common bedside diagnostic procedure was used in a Nigerian study.¹⁶ These two procedures were not tried in our series.

Most of the patients had ampullary ectopic pregnancy which is consistent with studies from other centres.¹⁷ Although surgery is the mainstay of management expectant and medical therapy can be offered to prevent fertility impairment.^{4,18} However, in our study as in many developing countries, salpingectomy was done due to late presentation. Salpingotomy was done in 3 cases because other tube was affected. In the developed world, minimal access surgery has become the preferred technique unless the woman is hemodynamically unstable. One of the cases presented with heterotopic pregnancy with intrauterine pregnancy alongwith ectopic in right ampullary region that was ruptured. Immediate laparotomy was done in this case and full progesterone support was provided to intrauterine pregnancy. Patient was discharged safely with viable intrauterine pregnancy.

Anemia was present in 52.5% cases resulting in multiple transfusions and in one case at least 6 pints needed because of need of hysterectomy due to uncontrolled bleeding from scar ectopic pregnancy. No other significant morbidity was encountered in our series. Long term morbidity in term of risk of recurrence, chronic pelvic pain or infertility were not considered in this study.

Fortunately there was no mortality in our small series. Other studies had mortality rates of 1.5% to 3.7%.^{8,9,19} Mortality depends on the size of the study population and the clinical state of the patients at presentation.

CONCLUSIONS:

In this series abdominal pain was the only symptom which was present in almost all patients with ectopic pregnancy. High index of suspicion of ectopic pregnancy gives patient an opportunity for tubal conserving treatment. Rapid serum HCG assay was a helpful adjunct.

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