Ectopic Pregnancy - A Clinical Study with Special Reference to Post Sterilization

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ABSTRACT

Introduction: Ectopic pregnancy remains the leading cause of maternal death in early pregnancy. Study aimed to analyze cases of ectopic pregnancy regarding clinical features and operative findings with special reference to the the incidence in women after sterilization.

Material and methods: Retrospective study of 50 cases of ectopic pregnancy at Gandhi medical college and hospital, secunderabad, for a duration of 2 years.

A detailed history taken regarding complaints,examination done and investigated with routine investigations , ultrasound, culdocentesis and urine pregnancy test.

Results: In our study, 60% Patients were in 26-30 yrs age group, while 80% were multiparous. 40% showed no identifiable risk factors. 26% were post sterilization , 20% with history of infertility, 4% had IUCD, 4% with history of tuberculosis. 94% presented with abdominal pain, amenorrhea in 72% and 44% with vaginal bleeding On examination, cervical motion tenderness in 64% , fornicial mass in 70%. On evaluation, 98% had positive urinary pregnancy test. 86% of ectopic gestation was in fallopian tube (10%- cornual, 16%-isthmal, 46%- ampullary, 2% fimbrial, 12% tubal abortion). 4% were in rudimentary horn, 6% ovarian, 4% were secondary abdominal.

Conclusion: Ectopic pregnancy forms one of the commonest obstetrics emergency. High degree of suspicion leads the clinician to the diagnosis of ectopic pregnancy. Timely and appropriate management reduces the mortality drastically. In all women with reproductive age irrespective of their previous sterilization status, presenting with abdominal pain and vaginal bleeding, ectopic should be suspected.

Keywords: Ectopic Pregnancy, Post Sterilization, Obstetrical Emergencies

INTRODUCTION

"Pregnancy in the fallopian tube is a black cat on the dark night. It may make its presence felt in subtle ways and leap at you it may slink past unobserved. Although it is difficult to distinguish from cats of other colors in the darkness, illumination clearly identifies it" by M.C.Fadyen.

An ectopic pregnancy is one in which the fertilized ovum is implanted and develops outside the normal uterine cavity.

Lawson Tait, the father of gynecologic surgery, reported the first successful operation for ectopic pregnancy in 1883.

The frequency with which ectopic pregnancy presents in the gynecological departments of the hospital, the disparity of its symptoms and signs and the intricacies in its diagnosis has made ectopic pregnancy both an interesting and a challenging problem.[1,2]

This is one of the commonest acute abdominal emergencies. Quite often delayed or mistaken diagnosis delays surgical treatment and endangers the life of the patient. The clinical use of sensitive pregnancy testing, transvaginal ultrasonography and diagnostic laproscopy has a major impact on the preoperative diagnosis of this condition.

An ectopic pregnancy is assuming greater importance because of its increasing incidence and its impact on women's fertility.

The reasons for increase in incidence of ectopic pregnancy has not been fully elucidated, but the possible contribution of pelvic inflammatory disease, ovulation inducing drugs, previous abdominal pelvic surgeries and intra-uterine contraceptive device use has been cited as contributing factors. The diagnosis of ectopic pregnancy has become more frequent during the last decades, but the incidence of the ectopic pregnancy rupture has declined. This decline is due to quantitative human chorionic gonadotropin measurments, minimally invasive surgeries, and tranvaginal ultrasonography.

Ectopic pregnancy remains the leading cause of maternal death in early pregnancy. With respect to management of ectopic pregnancy, there has been a tremendous technical advance. The early diagnosis and treatment of this condition over the past two decades have allowed a definitive medical management of unruptured ectopic pregnancy even before there were clinical symptoms.

There is an increasing importance of previous sterilization as an etiological agent in ectopic gestation.

This prospective analysis was done to determine the incidence, clinical features, risk factors, treatment and morbidity associated with ectopic pregnancy in tertiary care center. The aim of the present study was to analyze 50 consecutive cases of ectopic pregnancy regarding clinical features and operative findings with special reference to the incidence in post sterilization cases.

MATERIAL AND METHODS

It was prospective study conducted in the department of obstetrics and gynecology, Gandhi medical college and

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hospital, for period of 2 years. 50 cases of ectopic pregnancy were diagnosed and recruited for the study after taking their consent for participation.

Inclusion criteria: All the cases diagnosed as ectopic pregnancy admitted to Gandhi medical college and hospital, during study period of 2 years.

Exclusion criteria: All intrauterine pregnancy.

Methodology

Detailed history including age, socioeconomic status, and history suggestive of risk factors for ectopic pregnancy, menstrual and obstetrics history were taken. General, systemic, abdominal, vaginal examination was done. Informed consent was taken and data were recorded on the proforma. Apart from routine surgical profile, urine pregnancy test, culdocentesis, transvaginal sonography were done.

RESULTS

The average incidence in this study was 28.5 years with the youngest 21 years and oldest 45 years.

In the present study 10 patients were primigravida and 40 were multiparae. Most of the patients were from low socioeconomic strata and were from rural areas.

Thus 40% had no identifiable risk factors. While 26% were post tubectomy. Thus in all women with reproductive age group irrespective of their previous sterilization status, ectopic should be suspected (table-1).

94% had abdominal pain as presenting complaint, 72% had amenorrhea, 44% with vaginal bleeding.

Some cases can present with urinary symptoms like retention of urine. Some patients can even complain of shoulder pain due to diaphragmatic irritation by haemoperitoneum (table-2).

Thus 98% had positive urine pregnancy test showing high accuracy for diagnosis of ectopic pregnancy with other signs and symptoms. 76% presented with pallor, all the patients needed on an average 2-3 units of blood transfusion. 76% with abdominal tenderness and 64% had tenderness of cervical movements. Even though 12% present with shock, the mortality is nil because of immediate laparotomy and blood transfusion (table-3).

The commonest site of ectopic gestation is found to be in the tube (86%). In the tubes, ampullary region was the commonest site with 46%. Of the total 50 cases, 4 were unruptured ectopic pregnancies, out of which 3 were in ampullary region, one in fimbrial part. Tubal abortion was noted in 12% of cases (table-4).

DISCUSSION

The rapid increase in the incidence of ectopic pregnancy has been ascribed to an increase in sexually transmitted disease's and resultant tubal disease.[2] The most convincing evidence that PID is the major cause of ectopic pregnancy comes from the work of westrom colleagues who have reported a sevenfold increase in the ectopic pregnancy rate in women with laparoscopically proven salpingitis.[2]

Sr. No.	Predisposing factors	No of patients	%
1	No identifiable risk factors	20	40%
2	Post M.T.P.	3	6%
3	Post tubectomy	13	26%
4	History of infertility Primary Secondary	10 6 4	20% 12% 18%
5	Use of IUCD	2	4%
6	History of tuberculosis	2	4%
7	Use of oral contraceptive pills	Nil	-
8	Repeat ectopic	3	6%
9	History of white discharge	6	12%
10	Family history of tuberculosis	1	2%
11	History of abdomino-pelvic surgery	1	2%
12	VDRL positive	2	4%

Table-1: Showing the risk factors in patients of ectopic pregnancy

Sr. No.	Presenting symptoms	Number of patients	%
1	Abdominal pain	47	94%
2	Amenorrhea	36	72%
3	Vaginal bleeding	22	44%
4	Nausea, vomiting	29	58%
5	Syncope	20	40%
6	Fever	7	14%
7	Retention of urine	1	2%
8	No symptoms (incidentally diagnosed during minilaprotomy for tubectomy)	1	2%
9	Shoulder pain	1	2%

Table-2: Analysis of presenting clinical picture

Sr. No.	Presenting sign	No. of patients	%
1	No pallor	12	14%
2	Pallor	38	76%
3	Shock	6	12%
4	Mass abdomen	3	6%
5	Abdominal tenderness	38	76%
6	Tenderness of cervical movements	32	64%
7	Mass in fornix	35	70%
8	Positive urinary pregnancy test	49	98%

Table-3: Presenting signs

Sr. No.	Site	No. of patients	%
1	Fallopian tube A) Cornual B) Interstitial C) Isthmal D) Ampullary E) Fimbrial F) Tubal abortion	43 5 Nil 8 23 1 6	86% 10% - 16% 46% 2% 12%
2	Rudimentary horn	2	4%
3	Ovarian	3	6%
4	Secondary abdominal	2	4%

Table-4: Showing site of ectopic gestation at laparotomy

Traditionally , the diagnosis of ectopic pregnancy was made based on the clinical picture. A sexually active women of reproductive age having symptoms of lower abdominal pain and vaginal bleeding was suspected of having an ectopic pregnancy until proven otherwise.[4]

The important of symptoms should not be underestimated today despite the powerful diagnostic armamentarium. The morbidity and mortality associated with ectopic pregnancy are directly influenced by the interval between the onset of the symptoms and start of treatment.[15]

State of the art urine HCG assays typically have a detection limit of 25-50IU/I with false negative rates of less than 2%.[2]

The use of transvaginal sonography permits a gestational sac to be consistently identified as early as 33-34 days following missed period. Any women who is biochemically pregnant and in whom the diagnosis of ectopic pregnancy cannot be further made or excluded on clinical grounds should have an ultrasonic examination, preferably by transvaginal route.[9]

Although overall rates of ectopic pregnancy are lower after tubal ligation, should pregnancy ensure from a failed procedure , there is 30-80% chance of ectopic pregnancy. Tubal sterilization carries a somewhat higher risk of ectopic pregnancy than barrier methods.[1]

In the present study 13(26%) cases of ectopic pregnancies are followed by tubal sterilization.

Women experiencing an accidental pregnancy with an intrauterine device insitu are at markedly increased risk of miscarriage and ectopic gestation.[8]

A few ectopic pregnancies resolve spontaneously, while the majority of cases can be removed laparoscopically or treated with drugs such as methotrexate or KCL.[2]

Early diagnosis is the key to less invasive treatment for ectopic pregnancy.[5,13] The trend is towards treating ectopic pregnancies more conservatively and less invasively. Upto 30% of all ectopic pregnancies may be suitable for expectant management, but at present these pregnancies cannot be identified. Surgically administered medical treatment can be used for ectopic pregnancy with little risk of systemic side effects if suitable expertise and equipment are available.[2,11]

CONCLUSION

Ectopic pregnancy forms one of the commonest obstretic emergency. High degree of suspicion leads the clinician to the diagnosis of ectopic pregnancy. Timely and appropriate management reduces the mortality drastically. In all women with reproductive age irrespective of their previous sterilization status, ectopic should be suspected.

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