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Original Research Article

Clinical presentation of tubal ectopic pregnancy

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ABSTRACT

Background: When the fertilized ovum gets implanted at site other than normal position of uterine cavity, it is known as ectopic pregnancy. Incidence of ectopic pregnancy is 1-2% of all reported pregnancies. It is an unmitigated disaster of human production and the most important cause of morbidity and mortality in first trimester with major cause of reduced child bearing potential. It is notorious in its clinical presentation, challenging the attending physician.

Methods: women with risk factors, signs and symptoms and with confirmed diagnosis. Women discharged against medical advice. Study population is 50. Retrospective analysis for 3 years (2016-2019). Objectives of this study were to study the incidence, risk factors, clinical presentation, diagnosis and changing trends of modern management. Results analysed after entering the information in the excel sheets using descriptive analysis

Results: Out of 4940 deliveries, 50 were tubal ectopic pregnancies 1.012%. Women aged 20-25 years were 52%. In our study, multiparous were 68%. Common symptoms were abdominal pain 80.2%, amenorrhea 72%, urine gravindex test positive 92.8%. Etiology was PID 20%, previous ectopic pregnancy 4%, IUCD 4%, LSCS with tubectomy 16%, most common site is ampulla 82%. About 78% were ruptured. Tubal abortions 4%, salpingectomy done in 82%. Laparotomy in 2.43% in hemodynamically unstable. Medical management 8%. Salpingostomy in 4% and expectant management 2%. Morbidity in the form of blood transfusion 23.48%, DIC with ICU admission 2%. No mortality.

Conclusions: A high index of clinical suspicion with underlying risk factors may get us early diagnosis for timely intervention.

Keywords: Risk factors, Salpingectomy, Tubal ectopic pregnancy

INTRODUCTION

When fertilized ovum gets implanted at site other than normal position of uterine cavity, it is known as ectopic pregnancy. Ectopic gestation is an unmitigated disaster of human production and is the most important cause of morbidity and mortality in first trimester with major cause of reduced child bearing potential. 95-98% of all ectopic pregnancies are seen in fallopian tubes.¹

It is the most important cause of maternal mortality and morbidity in first trimester.²

Diagnosis requires a high index of suspicion as the classic triad of amenorrhea, abdominal pain and vaginal bleeding is not seen in majority of cases. Women may present with nonspecific symptoms, unaware of ongoing pregnancy or may even present with hemodynamic shock. The contribution of ectopic pregnancy to maternal mortality in developing countries including India is not presently known, with data from few studies indicating 3.5-7.1% maternal deaths due to ectopic pregnancy.^{3,4}

Risk factors like previous ectopic pregnancy, tubal sterilization, tubal corrective surgeries, infertility, tubal

pathology, PID, prior abortions, assisted reproductive technologies, IUD, multiple sexual partners, prior abdominal or pelvic surgeries have been implicated in the development of ectopic pregnancy.⁵ Incidence of ectopic pregnancy is 1-2% of all reported pregnancies. The risk of death from ectopic pregnancy has declined by 90%.⁶ A knowledge of associated risk factors helps identify women at higher risk in order to facilitate early and more accurate diagnosis.⁷ Chlamydia trachomatis has been linked to 30-50% of all ectopic pregnancies.⁸ Because of the variety of symptoms that may occur, ectopic pregnancy has been called “the great Masquerader”. The classical clinical triad is seen in less than 50% of cases.⁹

The study by Gaskins et al, reminds us that while STI'S contribute to a major cause of ectopic pregnancies, there is a strong evidence both epidemiological and experimental that ectopic pregnancy is associated with other risk factors and may occur with apparently normal fallopian tubes.¹⁰

METHODS

This study was conducted in the department of obstetrics and gynecology, Dr. Pinnamaneni Siddhartha Institute of Medical Sciences and Research Foundation, Chinoutpalli, Andhra Pradesh, India. During the period of August 2016 to July 2019 for a period of 3 years.

Inclusion criteria

- Women with risk factors, signs and symptoms and women with confirmed diagnosis.

Exclusion criteria

- Women who got discharged against medical advice. Study population were 50.

Retrospective descriptive analysis. Objectives of this study were to study the incidence, risk factors, clinical presentation. Diagnostic methods and changing trends in modern management. The case sheet of patients diagnosed with tubal ectopic pregnancies were traced through labour ward, emergency ward registers, medical records departments and operation theatre registers.

Information regarding the total number of tubal ectopic pregnancies in the study period. details of age, socio

economic status, parity, clinical symptoms and signs, risk factors, diagnostic tools used, previous H/O ectopic pregnancy, any pelvic surgeries, tubal correction surgeries, associated morbidity and mortality were obtained.

RESULTS

During the study period of three years, there were 4940 deliveries and 50 cases were diagnosed as tubal ectopic pregnancies giving the incidence of 1.01%.

Table 1: Age.

Age (years)	Number	Percentage %
<20	6	12
20-25	26	52
26-30	8	16
>30	10	20

Majority of patients belonged to 20-25 years age group 52% (Table 1).

Table 2: Gravidity.

Primi	Number 16	% 32
G2	12	12
G3	20	20
≥ G4	2	2

In the present study, 68% were multigravida (Table 2).

Table 3: Risk factors.

Risk factors	Number	%
H/O PID	10	20
H/O previous ectopic pregnancy	2	4
H/O previous tubectomy	20	40
Post LSCS	15	-
Vaginal delivery	5	-
H/O IUCD	2	4
H/O ART	1	2
Post LSCS	12	24
H/O induced abortion	2	4

A total 20% had H/O pelvic infection, 4% had previous ectopic, post tubectomy in 40%, IUCD 4% (Table 3).

Table 4: TVS findings.

Adnexal mass	hemoperitoneum	Provisional diagnosis	No. of patients	%
Present	Moderate to massive	Ruptured ectopic	39	78
No mass	Moderate	Tubal abortion	3	6
Well defined sac	No	Unruptured ectopic	4	8
Mass seen	minimal	Unruptured tubal ectopic	3	6
No mass	Nil	PUL, Follow up	1	2

Clinical presentation

In the present study, 80.2% had abdominal pain, followed by H/O amenorrhoea 72%, H/O bleeding or spotting per vaginum in 65.4%, UPT was positive in 80% of cases, weakly positive in 20 % of cases.

Ultrasound abdomen along with transvaginal USG diagnosis of adnexal mass with hemoperitoneum in 78%

suggestive of ruptured tubal ectopic, out of which 75% of patients presented with shock. In 6%, no adnexal mass but free fluid in peritoneum seen. In 3% of cases, adnexal mass with minimal free fluid seen with ring of fire sign. In 2% cases no mass is seen in scan, no hemoperitoneum but due to weak positive UPT and significant serum β hcg values patient had been follow up (Table 4).

A total 82% ectopics were seen in ampullary region (Table 6).

Table 5: Management.

Diagnosis	Procedure
Ruptured tubal ectopic	Laparoscopic salpingectomy in stable patents, salpingectomy by laparotomy in unstable
Unruptured tubal ectopic with hemoperitoneum	Salpingostomy
Unruptured with no hemoperitoneum	Medical management
Tubal abortion	Laparotomy, hemoperitoneum drained
PUL	Expectant management with Sr. β hcg follow-up and TVS after 5 days showed heterogenous mass in left adnexa. So, Lap. Salpinectomy was done

Morbidity in the form of blood and blood products transfusion, ICU admission with DIC, prolonged hospital stay, wound infection was noted. No maternal mortality is seen in our study.

Table 6: Site of tubal ectopic.

Site of ectopic	Number	%
Ampulle	41	82
Cornual	8	16
Isthmus	1	2
Fimbrial	None	None

DISCUSSION

The incidence of ectopic pregnancy has been on rise past 20 years. The incidence in this present study was 1.01%

Majority of woman, (68%) in our study group belonged to the age group of 20-30 years, which is close to the studies done by Mulfti S, et al (75.4%) Panchal D, et al (71.66%) and Rashmi.^{11,12} Urine pregnancy test was positive in 92.8%. In this study which correlated with study done by Gaddagi RA et al (97.3%).¹³

In the present study group, majority of women with ectopic pregnancy were multi gravida (68%) which correlates with the studies done by Shetty K, et al (83.9%) Panchal D et al, (81.66%) and Poonam et al, (83.6%).^{12,14,15}

The higher incidence in multigravida is probably due to previous miscarriages and infection resulting in tubal damage.

In the present study group history of pelvic inflammatory disease was present in 20% of the cases which is correlating with the study done by Bhavna et al, 22.7% of the cases with ectopic pregnancy.¹⁶

In this study group, 6% of the women were infertile which is correlating with the studies done by Panchal D, et al, (11.66%) and Mufti S et al, (8.77%).^{11,12} Pelvic infection is the predisposing factor for tubal damage and infertility leading to ectopic pregnancy. In this study 4% of the women had history of previous ectopic pregnancy which is correlating with the studies done by Mulfti S et al, (5.26%) and Shabab U et al, (5%).^{11,17} The pathology is being underlying tubal pathology which is almost always bilateral.

In this study 40% cases had history of tubal sterilization with post LSCS and normal vaginal delivery of which 6% had tubal ectopic with puerperal sterilization which correlates with the studies done by Uzmashabab et al, (5%) and Shrestha et al, (5%).^{17,18} Improper surgical technique and formation of peritubal fistulas may result in ectopic pregnancy. In postpartum period, edematous, congested and friable tube increases the chance of incomplete tubal occlusion resulting in ectopic implantation.

Ectopic pregnancy with IUCD in situ accounted for 4% which correlates with the studies done by Shetty KS et al, (6.4%) Shrestha et al, (5%) and Fageeh WM (5.8%).^{14,18,19} The risk of tubal pregnancy is more if a woman conceives with IUCD in situ.

The triad of investigations for diagnosis are urine gravindex test, serum β hCG and transvaginal

ultrasonogram. Serum β hCG levels to be followed up where the diagnosis is uncertain and when USG is inconclusive in early gestation.²⁰

However, ultrasonogram must be the initial investigation of choice in symptomatic women.

The triad of presenting complaints were abdominal pain followed by amenorrhea and abnormal vaginal bleeding. Clinical signs included abdominal tenderness, adnexal tenderness and cervical motion tenderness.

The commonest site of tubal ectopic was the ampulla. Ampullary part is the most commonly involved in most of the studies on ectopic pregnancy.²¹ Right side tubal ectopic is seen in 60% and left tubal ectopic pregnancy in 40% cases consistent with other studies.²²

Ruptured ectopic pregnancy present in 78%, unruptured in 14% and tubal abortion 6%.

Laparoscopy and medical therapy are now the widely used therapeutic modalities with great success.

But as medical management needs close follow up and hospitalization for observation, surgical management is still the choice in India.²³

Patients may have short-hospital stay, reduced morbidity and more so conservation of fertility.²⁴ However choice depends on diagnosis at early gestational age and stable condition of patients.²⁵

In this study morbidity included anaemia, blood and blood products transfusion, ICU admission with DIC, wound infection, prolonged hospital stay for 1 patient.

So, one should have a high index of suspicion in detecting, evaluating risk factors, diagnosing at the earliest so that fertility potential is preserved with reduced morbidity.²⁶ No maternal mortality found in this study. Consistent with Abbas A and Akram H study.²⁷

CONCLUSION

As the incidence of ectopic pregnancy is on rise with its notorious presentation, a high index of clinical suspicion with early diagnosis using transvaginal USG, β hCG may help to diagnose at the earliest and reduce the morbidity and the fertility potential may also be preserved by medical conservative management.

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