

Study of 50 cases of ectopic pregnancy in a tertiary care hospital

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Abstract

Background: Ectopic pregnancy is one of the clinical conditions which always challenged the clinical acumen of obstetricians and gynecologists for its bizarre clinical picture. It presents as an acute emergency and a life-threatening event. The department of O & G, medical college and S.S.G. hospital Vadodara is the largest referral centre in central Gujarat, receiving many emergency obstetrics cases not only from distant rural areas in Gujarat but also from borderline villages of M.P and Rajasthan. Therefore, it was pertinent to us to understand the emergency obstetrics condition like ectopic pregnancy. **Methods:** A retrospective study of randomly selected 50 cases of ectopic pregnancy admitted during June 2005 to November 2006, in the Dept. of Obstetrics and Gynaecology, in a tertiary care hospital named SSG Hospital at Vadodara. All the cases diagnosed as ectopic pregnancy after histopathological confirmation were included in the study. Data regarding demographic parameters, booking status, mode of presentation, parity, symptoms, different treatment options and histopathological findings were recorded. Complete intraoperative finding and type of surgery were noted. **Results:** In present series the ectopic pregnancy rate is 7.9/1000 birth. Most common age group presenting with ectopic pregnancy was 20-30 years. Lower abdominal pain, amenorrhoea, bleeding p/v were most common presenting symptoms. Majority of patients had a PID and infertility as a risk factor. 90% of cases presented with ruptured ectopic pregnancy. Surgical management is done in most of the cases. **Conclusions:** To diagnose ectopic pregnancy high index of suspicion is required. Past history of PID and infertility & its treatment increases the incidence of ectopic pregnancy. Early diagnosis is the key for early management. The triad of bleeding per vaginum, abdominal pain and amenorrhoea should never be ignored.

Keywords: Ectopic pregnancy, Tubal ectopic pregnancy, Salpingectomy, Amenorrhoea.

Introduction

An ectopic pregnancy is a pregnancy that is not growing in the usual location (uterine cavity). The blastocyst is normally implants in the endometrial lining of the uterine cavity, implantation anywhere else is an ectopic pregnancy. Ectopic pregnancy is one of the clinical conditions which always challenged the clinical acumen of obstetricians and gynecologists for its bizarre clinical picture [1]. Ectopic pregnancy should be considered a relevant public health indicator. It presents as an acute emergency and a life-threatening event. Recent evidence indicates that the incidence of ectopic pregnancy has been rising in some countries. The reasons behind the increased incidence may be increased prevalence of chronic PID, tubal surgeries, IUD usage, ART procedures for infertility [1].

The management of ectopic pregnancy has traveled way starting from radical surgery like salpingectomy to conservative management with salpingotomy and Laparoscopic salpingectomy and now medical management with methotrexate [2]. In spite of the advances in modern technology in diagnostic methods and management, ectopic pregnancy still remain a very serious threat to maternal safety and hence it is an open field to study still deeply for gynecologists.

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Aims & Objectives

To evaluate out incidence, mode of clinical presentation, diagnostic problems and different treatment modalities of ectopic pregnancy at SSG hospital Vadodara.

Material & Methods

Type of study: This study is a retrospective cohort study of 50 admitted cases of ectopic pregnancy who were managed at department of Obstetrics & Gynecology at SSG Hospital, Vadodara.

Study was done in a large tertiary care hospital.

Sample size: 50 cases of confirmed cases of ectopic pregnancy

Duration of study: The study was conducted over a period of 2 years.

Results

Total 50 cases of ectopic pregnancy were retrospectively studied who were admitted during period from 01/06/2005 to 30/11/2006. This study was conducted at SSG Hospital and different mode of presentation, diagnostic problems, along with different treatment modalities of ectopic pregnancy were studied during my residency in the present unit at the time of this study. In present study 27 (54.0%) were emergency cases and 23 (46%) were referred cases. So large no of patients came as emergency cases. In present series incidence of ectopic pregnancy is 7.9/1000 birth. Table 1 signifying distribution of cases according to their age and residential status.

Table-1: Distribution according to age& residence.

Variables	Category	No. of cases	Percentage
Age (in years)	20-25	24	48.0
	26-30	16	32.0
	31-35	07	14.0
	>35	03	06.0
Residence	Rural	27	46.0
	Urban	23	54.0

As per Table 1 shows majority of patients (80.0%) fall between age group 20-30 years which is peak of reproductive age. Overall also majority of cases were recorded to be from rural areas.

Table-2: Distribution according to gravidity.

Gravidity	Cases	Percentage
1	13	26.0
2	10	20.0
3	13	26.0
4	07	14.0
5	02	04.0
6	01	02.0
7	04	08.0
Total	50	100

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Table 2 clearly demonstrate that ectopic pregnancy is more common in multiparous women. Above 74% of cases were multipara and only 26% cases were nulliparous.

Table-3: Distribution as per mode of presentation.

Mode of presentation	Cases	Percentage(%)
Ruptured	40	80.0
Unruptured	10	20.0

Table-4: Sites and ectopic pregnancy.

Site of ectopic pregnancy	No	Percentage
Ampullary	25	50.0
Isthmic	13	26.0
Tubal abortion	05	10.0
interstitial	02	4.0
ovarian	02	4.0
rudimentary horn	03	6.0

Table 03 demonstrates that in this study 40 that is 80.0% were ruptured ectopic pregnancy as compared to 10(20%) unruptured ectopic pregnancies.

Table 4 demonstrates that in this study most common site for ectopic pregnancy is tubal ectopic pregnancy that is 90%. Among the site of ectopic pregnancy out of 90% of tubal ectopic pregnancy 50% ampullary, 26% isthmic, 2% interstitial and 10% were tubal abortions. The results of the present study corresponded with that of N Jalu et al [3] and D.C. Datta [4].

Table-5: Symptoms and signs associated with ectopic pregnancy.

Clinical features	Present study		Previous study	
	No	%	No	%
Lower Abdominal Pain	48	95.34	86	92.4
Amenorrhoea	33	62.79	73	78.49
Syncope	27	32.55	29	31.2
GI Symptoms	28	46.51	46	49.1
P/A Tenderness	33	90.69	78	83.6
Guarding and rigidity	35	74.41	62	66.6
Cervical Tenderness	49	95.34	52	55.9
adnexal mass/fullness	40	76.7	62	66.6

Table 5 shows that lower abdominal pain was the commonest presenting symptom in the present study (96.0%). Amenorrhea was present in 66% cases.

Abnormal uterine bleeding was found in 54% cases, syncope attack was found in 54%, while GI symptoms including nausea, vomiting were found in 56%. Cervical movement tenderness was the most important sign present in 98% of patient in the present study followed by tenderness in 66% cases.

Table-06: Risk factors in ectopic pregnancy.

Risk factors	Current study		Previous study	
	No	%	No	%
Previous ectopic pregnancy	1	2	03	3.2
Previous tubal surgery	05	10	05	5.4
History of PID	13	26	32	34.4
Sterilization	08	16	05	5.4
IUD in situ	07	14	20	21.5
MTP-abortion	04	8	18	19.35
H/o D and c	5	10	00	00
Previous LSCS	01	2	07	7.5
H/O tuberculosis	01	2	03	3.2
H/O infertility	12	24	14	15.1
None	04	08	30	32.2

Table-7: USG in ectopic pregnancy.

USG(TVS)	No of cases	Percentage
Adnexal mass	22	44
Gestational sac in ectopic site	17	34
Free fluid	31	62
Adnexal mass + free fluid	23	46

Urine pregnancy test is done in all cases. 98% of patient having the positive result and 2% of patients having the negative result. Table shows the USG findings in cases of ectopic pregnancy in the present study.

Table-8: Different treatment modalities of ectopic pregnancy.

Treatment modalities	No of cases	Percentage
Partial salpingectomy	43	86
Salpingostomy	00	00
Resection and end to end anastomosis	00	00
Salpingo-oophorectomy	00	00
Abdominal hysterectomy	02	04
Medical management	01	02
Spontaneous resolution	00	00
Negative laparotomy	00	00
Laparoscopic management	01	02
Resection of rudimentary horn	02	04
Suturing of ectopic site	01	02

Above table shows that in this study most of the patients treated by partial salpingectomy 86%. 98% of patients were undergone a surgical management and only 2% of patients were received the medical management.

Discussion

Age evaluation substantiates the fact that any woman capable of conceiving is capable of having pregnancy in a location other than the uterine cavity also. Olav Strode showed that maternal age is strongly associated with ectopic pregnancy risk steadily rise from women >29 years to marked rise for women >40 years. Majority of women with ectopic pregnancy were between 20-30 years of age in this study. In the present study, the peak age was 20-30 years compared to >30 years in western series [5], this can be explained by the fact that most of the women coming to S.S.G hospital are from low socioeconomic group, where early age marriage leading early pregnancy and early infection of reproductive system may be the possible reason.

There is no uniformity of denominator in reporting the incidence of ectopic pregnancy in different studies. In present series the ectopic pregnancy rate is 7.9/1000 birth. While reviewing the data all over the world it was observed that in USA the estimated rate was 19.7/100 in 1992, 4-fold from 4.5/1000 in 1970 as per report of CDC USA 1995 [5]. Various series from the U.K have shown the incidence between 8.3 to 12.5//1000 births. In the present study, most common site of ectopic pregnancy is ampullary tubal ectopic pregnancy this was explained by the muscular propulsion is greater in the isthmus than in the ampulla. The diameter of ampulla is more than the isthmus giving rise to lumen disparity and increase in resistance for the embryo to travel from ampulla to isthmus at the ampullaryisthmic junction [1]. In cases of ectopic pregnancy menstrual history is always inconsistent and period of amenorrhoea varies from <4 weeks to > 12 weeks, 50-80% cases shows some form of abnormal uterine bleeding while absence of amenorrhoea in 16% to 25% cases. AUB in ectopic pregnancy is due to endocrinal support for endometrium declines so bleeding is usually scanty, dark brown and may be intermittent or continuous.

Indian studies by Dilip Kumar showed 99-100% patients shows some form of menstrual abnormality with scanty period of amenorrhoea while S. Mitra showed 79% patient with pelvic pain and 89.5% with vaginal bleeding and 31.6% with pelvic mass also[6,7]. Thus typical triad of pain in abdomen, bleeding per vaginum and amenorrhoea should never be ignored. In the present study, the most common risk factor of ectopic pregnancy is PID and infertility. A previous study showed PID represents most clear cut and formidable risk factors for the ectopic pregnancy.

Damage to external and internal structures of the fallopian tube due to infection can lead to narrowing of lumen, formation of pockets, scarring of muscular layer of tube. Sometime peritubal adhesions lead to kinking and narrowing of fallopian tube which leads to trapping of ovum [4]. Now days ART mainly IVF-ET has high risk of tubal ectopic pregnancy rate is 3-5%. This is because of transfer of embryo into the tubes occurs accidentally or migration of embryo into the tube [8]. Sterilization is a reliable method of contraception with low incidence of failure rate. However, failure may occasionally result in ectopic pregnancy due to spontaneous recanalization of tube or tuboperitoneal fistula [9]. When there is past history of microsurgical tubal reconstruction or repair they are at higher risk of subsequent ectopic pregnancy. IUD can prevent intrauterine pregnancy but not ectopic so unintended pregnancy that occur in IUD users are more likely to be ectopic [10,11].

In present study, UPT was positive in 98% of cases. TVS is the best tool to detect a ectopic pregnancy nowadays. Both TVS and B-HCG level in combination is very useful for early diagnosis of ectopic pregnancy. Therefore, it can treat it before the ectopic pregnancy ruptures.

In the present study, 48 (96%) patients were managed surgically by partial salpingectomy by laparotomy, one case with laparoscopically and one case was dealt with medical management. Similar observation noted with N Jalu at SSG Hospital, [3]. In the current study, over 80% of the patients presented with ruptured ectopic pregnancy so chances of other mode of treatment were not possible to offered.

Limitation of the present study- In this study other mode of treatment of ectopic pregnancy (other than surgical management) is not studied well because of the most patients in this study presents in emergency. Laparoscopic management and medical management done in a smaller number of the patients.

Conclusion

To diagnose ectopic pregnancy high index of suspicion is required. Past history of PID and infertility and its treatment increases the incidence of ectopic pregnancy. Early diagnosis with help of B-hcg level and TVS is the key for early management. The triad of bleeding per vaginum, abdominal pain and amenorrhoea should never be ignored.

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It can be inferred from the present that earlier diagnosis before the rupture can save the fallopian tube by other mode of treatment and laparoscopic management of ectopic pregnancy can be offered. Thus, morbidity and mortality can be reduced from ectopic pregnancy.

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Ethical Approval: This study was approved by the Institutional Ethics Committee

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