



ECTOPIC PREGNANCY- REVISITING RISK FACTORS

Obstetrics & Gynaecology

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ABSTRACT

Background: Ectopic pregnancy (EP) presents a major two pronged health problem for women of child-bearing age, on one hand it may be life threatening if not timely diagnosed and treated; on the other hand it may adversely affect fertility. The aim of the study was to evaluate: Incidence, clinical presentation, risk factors, diagnosis and management of Ectopic pregnancy. The study may help pave way for inclusion of protocols in diagnosis and management of Ectopic pregnancy. **Materials And Methods:** This study was undertaken at Goa Medical College Hospital, Goa between November 2013 to June 2015. All diagnosed cases of Ectopic pregnancy were enrolled in the study. **Results:** Out of 8583 live births 82 cases were diagnosed as Ectopic Pregnancy. The incidence of ectopic pregnancy was found to be 9.55 per 1000 live births.(1:105). 25.6% of cases were from age groups 31-35 years. Greater incidence was noted between nulliparous women accounting for 41.5%. Risk factors seen were previous LSCS (18.3%), previous abortions (8.5%), tubal surgery(7.3%), previous ectopic (7.3%), MTP (3.7%), IVF (2.4%), PID(2.4%) and 87.8% of cases were managed surgically. **Conclusion:** There is an increase in the incidence and a decrease in maternal mortality due to ectopic pregnancy when compared with the studies done in India in the past two decades. The treatment modality also has evolved from radical to conservative surgery and even to medical and expectant management. But the paradox noted in this institution, is that even though early diagnostic tools were available, we had to manage most of our patients as surgical emergencies.

KEYWORDS

Ectopic pregnancy, scar pregnancy, ruptured ectopic

INTRODUCTION

Ectopic pregnancy has been an enigma which never fails to surprise the obstetrician. The plethora of symptoms and signs it can present with, plenty of diagnostic pit falls and management options available makes ectopic pregnancy a very challenging domain.

Purpose Of Study

To evaluate incidence, clinical presentation, risk factors, diagnosis and management of ectopic pregnancy in Goa Medical College.

MATERIALS AND METHODS

This study was undertaken at Goa Medical College Hospital, Bambolim, Goa between November 2013 to June 2015; after obtaining clearance from Ethical Committee, in accordance to 1964 Helsinki declaration and its later amendments or comparable ethical standards. Written informed consent was taken. A detailed history and clinical evaluation was done. Information was collected in a pretested proforma.

Inclusion Criteria

All diagnosed cases of Ectopic pregnancy admitted to Goa Medical College hospital during study period.

Exclusion Criteria

All intrauterine pregnancies.

Observation And Analysis

In this study, 82 cases of ectopic pregnancy were observed and treated during a period of one and half years from November 2013 to June 2015 at Goa medical college hospital, Bambolim, Goa. There were 8583 live births during this period.

Table 1 Incidence Of Ectopic Pregnancy In The Study Population.

Cases	Number
Total number of live births	8583
Total number of Ectopic pregnancies	82

Table 2 Clinical Presentation Of Ectopic Pregnancy In The Study Population

SI No	Symptoms	Number of cases	Percentage (%)
1.	All three symptoms	43	52.5
2.	Amenorrhea + Pain abdomen	21	25.6
3.	Amenorrhea + Bleeding PV	05	6.1
4.	Pain abdomen + Bleeding PV	04	4.9

5.	Only Amenorrhea	07	8.5
6.	Only Pain abdomen	01	1.2
7.	Only bleeding PV	01	1.2
	Total	82	100

Table 3 Distribution Of Risk Factors In Patients With Ectopic Pregnancy.

SI No.	Risk factors	Number of cases	Percentage (%)
1.	No risk factors	29	35.5
2.	Previous LSCS	15	18.3
3.	Previous Abortion	07	8.5
4.	Tubal surgery	06	7.3
5.	Previous Ectopic pregnancy	06	7.3
6.	Other associated conditions	04	4.9
7.	LSCS + Abortion	03	3.7
8.	MTP	03	3.7
9.	IVF or infertility treatment	02	2.4
10.	Pelvic inflammatory diseases	02	2.4
11.	Evacuation and curettage	02	2.4
12.	LSCS + E & C	01	1.2
13.	MTP + Laparoscopic ligation	01	1.2
14.	E & C + IVF	01	1.2
	Total	82	100%

Table 4 Distribution Of Cases Based On Ultrasound Findings And Condition Of Tubes

Ultra sound findings		Number of cases	Percentage (%)
Adnexal mass	Left side	33	40.2
	Right side	43	52.4
Unusual location	Cervix	04	4.9
	Scar	01	1.2
Ultrasound not done		01	1.2
Total		82	100
Condition of tubes		Number of cases	Percentage(%)
Ruptured		46	56.1
Unruptured		35	42.7
Ultrasound not done		1	1.2
Total		82	100

Table 5 Distribution Of Cases Based On Cervical Excitation Test And Intraoperative Condition Of The Tube.

CECT	Condition of the tube				
	Medically managed	Ruptured	Tubal abortion	Unruptured	Total
Negative	8	5	4	9	26
Positive	2	38	7	8	55
Not done	-	-	-	1	1
Total	10	43	11	18	82

Table 6 Distribution Of Cases On Management Of Ectopic Pregnancy.

Management	Number of cases	Percentage (%)
Medical management	8	9.7
Surgical management	72	87.8
Medical + Surgical	1	1.2
Discharge against medical advice	1	1.2
Total	82	100%

DISCUSSION

Incidence

The incidence of Ectopic pregnancy in the present study is 9.55 per 1000 deliveries. This is consistent with study done by Jophy R et al which was 10.2 per 1000 live births in 1999. However, compared with other studies done in India Rajasthan² (2010) showed incidence of 2.46 per 1000 live births, Mangalore in 2012 showed incidence of 5.6 per 1000 live births and ballari³ in 2006 showed incidence of 1:161. The incidence of Ectopic pregnancy as quoted by different workers in India and abroad are Schuman et al 1:303, King County hospital 1:83, Wagh et al 1:73. This discrepancy in the incidence may be explained by the different geographical location, different baseline characteristics of the patients, using total number of pregnancies reported, total number of deliveries conducted or total number of live births as the denominator in calculating incidence.

Age:

Ectopic pregnancy can occur at anytime from menarche to menopause. The highest incidence of ectopic pregnancy in this study was found to be in age group 21-30 years (51.2%). These results were consistent as compared to study done by Makaden et al Sunandabai et al and Das et al which showed age preponderance in 21-30 years. However western workers like Skulj et al, Leff and Lee have found that the age groups showing predominance of ectopic pregnancy between 31-35 years.

Aetiological factors:

Among the various factors previous lscs contributing to 18.3% of cases, previous abortion (8%), tubal surgery ie abdominal/pelvic (7%) ,a case control study included 900 cases of Ectopic pregnancy conducted by Cheng Li, puts the odds ratio at 1.92 in cases with previous appendicectomy⁷. In a case control study by Parashi S, the adjusted odds ratio for abdominal/pelvic surgery in cases of Ectopic pregnancy was found to be 5.24, previous ectopic(7%), in a case control study by Parashi S et al after final logistic regression analysis, the AOR was at 57.93 and positively correlated with previous history of ectopic pregnancy⁶, In a multivariable logistic regression analysis of risk factors for Ectopic pregnancy, Cheng Li et al in a case control study, found AOR to be 1.73, while crude OR was at 9.68⁷. Moini A et al report a crude OR of 17.16 (p<0.01) in their case control study⁸. IVF or infertility treatment contributed(2%) and PID(2%) respectively.

Symptomatology (Amenorrhea, pain abdomen and bleeding per vaginum)

Manifestations of an unruptured tubal pregnancy are not characteristic. Correct diagnosis is rarely arrived at. Almost all the symptoms and signs produced by tubal pregnancy are caused by ultimate rupture of tubal wall or abortion with resultant hemorrhage into the peritoneal cavity. Hence, symptoms and signs of tubal pregnancy as described are nothing but the clinical description of tubal gestation which has been disturbed. In the current study the typical traid was seen in 52.5% of the cases. Most common symptom was amenorrhea contributing to 92.7% of the cases followed by pain abdomen seen in 84.1% and bleeding pv seen in 64.6% of the cases. No pain in abdomen was seen in 13 cases (15.85%) may be due to undisturbed nature of tubal pregnancy or due to individual differences in the pain threshold.

There is an increase in the incidence of Ectopic pregnancy and a decrease in maternal mortality due to Ectopic pregnancy when compared with the studies done in India in the past two decades. The treatment modality also has evolved from radical to conservative surgery and even to medical and expectant management. But the paradox noted in this institution, is that even though the early diagnostic tools were available, we had to manage most of our patients as surgical emergencies i.e 87.8% of the cases were managed surgically and medical management was done in only 9.7% of the cases as they were brought late in the trial, with established diagnosis of ruptured Ectopic pregnancy. Among the risk factors previous LSCS contributed as the sole risk factor in 18.3% of the cases. This can be a source of further studies as to why cases were more evident in patients with previous lscs. Is it because of surgery and handling of fallopian tubes and fimbria or adhesions formed post surgery, needs further study for evidence. The commonest mode of termination of the pregnancy was rupture seen in 59.7% of the cases of which ampullary was the most common site seen in 76.6% of the cases of rupture. Among surgically managed cases most common surgery was right salpingectomy done in 28.7% of the cases. Intraoperatively hemoperitoneum was seen in 83.3% of the cases but blood transfusion was done in only 35.4% of the cases.

It is therefore important that all the physicians should be sensitive to the fact that in the reproductive age group any women presenting with pain in the lower abdomen, diagnosis of ectopic pregnancy should be entertained irrespective of the presence or absence of amenorrhoea, whether or not she has undergone sterilization.

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CONCLUSION