

Ectopic pregnancy – Two years review from BPKIHS, Nepal

Poonam¹, Uprety D², Banerjee B³

^{1,2,3}Department of Obstetrics & Gynaecology, BPKIHS, Nepal

Abstract

Ectopic pregnancy remains an important cause of morbidity and mortality in early pregnancy. The incidence has increased worldwide with an increase in pelvic infections and improvements in the diagnostic techniques. The objective of this study was to analyse the various aspects of ectopic pregnancy with a view to suggest interventions which would decrease the incidence.

Material and methods: The study was carried out in the department of Obstetrics and Gynaecology, B.P Koirala Institute of Health Sciences, Dharan (Nepal). Data were analysed retrospectively using the case sheets and operative notes from the past two years (April 02-April 04). The gynaecological admissions and records of the total births within the period of study were also used in the analysis.

Result: The incidence of ectopic pregnancy during this study period was 0.93 of total births and 2.92% of the total gynaecological admissions. The peak age of incidence was in the range of 26-30 years. Majority of patients were in the lower socioeconomic group. Pelvic inflammatory disease and induced abortions were the major risk factors. Their contribution was 61.3% and 38.6% respectively. 70.6% of patients did not use any contraception. 16% used depo provera. Abdominal pain (69.3%), vaginal bleeding (45.3%) and syncopal attacks (21.3%) were the most frequent presenting complaints. 58.6% had amenorrhea of 6-10 weeks. Only 1.3% presented with amenorrhea of greater than 10 weeks. Ampulla (62.6%) followed by isthmus (21.3) were the commonest sites of ectopic implantation. Ovarian and abdominal pregnancies contributed to only 1.3% each. There was no significant difference between the side of the tube involved. 82.6% had come with ruptured ectopic but only 12% were in shock. Majority of patients underwent salpingectomy (69.3%) followed by salpingo-oophorectomy (17.3%). Only 2.6% received methotrexate. 70.6% required blood transfusion.

Conclusion: Majority of patients attending BPKIHS for ectopic pregnancy were between 26-30 years and had history of PID & induced abortions. Surgery (salpingectomy/salpingo-oophorectomy) was the main stay of treatment.

Ectopic pregnancy is an increasingly common and potentially catastrophic condition for which patients often present to the emergency department. It remains an important cause of morbidity in early pregnancy. The incidence has increased worldwide with an increase in pelvic infections and improvements in the diagnostic techniques.

But the overall incidence is difficult to determine because of variation in the availability of medical facilities and of course on an individuals socioeconomic status and attitude towards health, especially in the developing countries. The objective of this study was to analyse the various aspects of ectopic pregnancy with a view to suggest interventions that would decrease the incidence.

Material and methods

The study was carried out in the department of Obstetrics and Gynaecology, B.P Koirala Institute of Health Sciences, Dharan (Nepal). Data were analysed retrospectively using the case sheets and operative

notes from the past two years.(April 02-April 04) .All case notes were retrieved and analysed for age, parity, contraceptive methods, significant past medical & surgical history, clinical presentation, operative findings and outcome of treatment. The gynaecological admissions and records of the total births within the period of study were also used in the analysis.

Correspondence

Dr. Poonam
Assistant Professor, Department of Obs & Gynae
B.P Koirala Institute of Health Sciences
Dharan, Nepal
Email- yoginileo@yahoo.com

Result

The total number of deliveries during the study period was 8006 and the total gynaecologic admissions were 2563. Ectopic pregnancy constituted 2.92% of all gynaecological admissions. The incidence of ectopic in our study was 0.93%. This is slightly higher than 0.67% reported from the western countries (1). The trend was that of a yearly rise during this study period.

Table 1 shows the sociodemographic factors of patients. The peak age of incidence was in the 26-30 years, consistent with the findings of Gharoro & Igbafe (2). This was followed by equal number of patients in the 20-25 and 36-40 years age group.

Out of 75 patients 36% were G2, 29% G3, 18.6% G4 & above and only 16% were primigravidas. Majority i.e. 69.3% were from the lower socioeconomic group whereas only 2.6% constituted the high class. Surprisingly 6.6% were unmarried and out of this one patient was operated upon for previous ruptured ectopic. She also had a history of induced abortion prior to the previous ruptured ectopic.

Table 2 shows the major risk factors amongst the patients under study. Pelvic inflammatory disease topped the list as expected. 61.3% suffered from PID. Induced abortion was next in number-38.6% (3). This exceeded the number of spontaneous abortions-13.3%.

19 patients i.e. 25% had history of previous abdomino pelvic surgery. Out of this, 3 patients (5.3%) were ligated. All by Pomeroy's technique. Two (2.6%) were operated upon for previous ruptured ectopic. One had tubo tubal anastomosis done six months back. Amongst the remaining seven, appendicectomy was done in two with the rest having previous caesarean-8%

The majority of patients i.e. 70.6%, were not using any contraception while 12%, 5.3%, 4%, and 1.3% were using either Depo provera, Barrier, oral contraceptive pills or IUCD respectively. In 2 patients-2.6% nothing was mentioned regarding contraception. Three patients were ligated. The pill users were not sincere in taking the drug. In this study seven patients -9.3% had primary infertility whereas 12% i.e. 9 patients were from secondary infertility group.

Table 3 shows the clinical profile of patients. Most of the patients presented with more than one symptom. But the most common amongst those was abdominal pain as expected. It was present in around 69.3% of the cases. 45.3% were bleeding vaginally followed by syncopal attack in 21.3%. Only two patients were symptom less. They were diagnosed by USG during routine scan.

Adnexal mass was felt in 81.3% of cases. 69.3% had abdominal tenderness whereas 32% presented with abdominal distension either alone or in combination with other symptoms. In 76% of the cases cervical motion tenderness could be elicited. 12% of patients were in shock at the time of admission. Regarding the duration of ectopic, surprisingly 16% patients did not miss their periods. The majority i.e. 58.6% were in the 6-10 weeks group followed by 4-6 weeks which constituted 24% of the total patients. Only one patient crossed 10 weeks.

Table 4 shows the findings at surgery. The commonest site of ectopic gestation was seen in the ampulla- 62.6% followed by the isthmus-21.3%. There were abdominal and ovarian gestations also, one each. Left side of the tube was involved in 49.3%, slightly more than that of the right-42.6%. The majority of patients had come with ruptured ectopic-82.6%. Only two patients had come with tubal abortion in process.

Table 5 shows the management options. Seventy one patients underwent laparotomy. Salpingectomy was the commonest procedure performed-69.3% followed by Salpingo-oophorectomy in 17.3% of cases. Cornual resection was done in three cases. The two asymptomatic patients who were diagnosed by USG on routine check up were treated with single dose methotrexate and folic acid. The remaining two were treated laparoscopically.

Table 6 shows the post operative complications. Majority of patients required blood transfusion-70.6%. 42.6% had post-op fever. 9.3% required MICU (Maternal intensive care unit) admission. But none of the patients had hospital stay longer than 10 days. Seven patients had come with gross haemoperitoneum and out of this one had 1.2-gram haemoglobin. Surprisingly there was no mortality. Majority of patients were in their third decade of life. Incidence: 0.93%

Table 1: Sociodemographic factors

AGE IN YEARS	NO. OF PATIENTS	PERCENTAGE
20-25	13	17.3
26-30	33	44
31-35	9	12
36-40	13	17.3
41-45	7	9.3
PARITY		
G1	12	16
G2	27	36
G3	22	29
G4 & above	14	18.6
SOCIOECONOMIC STATUS		
Low	52	69.3
Middle	21	28
High	2	2.6
MARITAL STATUS		
Married	70	93.3
Unmarried	5	6.6

Table 2: Various risk factors

RISK FACTORS	NO. OF PATIENTS	PERCENTAGE
Pelvic Inflammatory disease	46	61.3
Abortions		
Spontaneous	10	13.3
Induced	29	38.6
Previous Surgery	19	25
Tubal Ligation	3	4
Other Abdominopelvic surgeries- Appendicectomy -Caesarean section Tubotubal anastomosis	14	18.6
Previous ectopic	2	2.6
Contraception used		
IUCD	1	1.3
Depo provera	12	16
Oral contraceptive pills	3	4
Barrier	1	1.3
No contraception used	53	70.6
Not mentioned	2	2.6
Infertility		
Primary	7	9.3
Secondary	9	12

Table 3: Showing the Presenting Clinical features

Presenting Symptoms and Signs	No. of patients	Percentage
Abdominal Pain	52	69.3
Vaginal Bleeding	34	45.3
Syncopal Attacks	16	21.3
No Symptoms	2	2.6
Periods not missed	12	16
Amenorrhoea		
4-6 weeks	18	24
6-10weeks	44	58.6
>10 weeks	1	1.3
Abdominal Tenderness	52	69.3
Abdominal Distension	24	32
Cervical motion Tenderness	57	76
Adnexal Mass	61	81.3
Shock	9	12

Table 4: Showing the findings at surgery:

Findings	No. of Patients	Percentage
Side of tube Involved		
Left side	37	49.3
Right Side	32	42.6
Not mentioned	6	8
Site of ectopic gestation		
Fallopian Tube		
Ampullary	47	62.6
Isthmic	16	21.3
Infundibular	8	10.6
Cornual	2	2.6
Ovarian	1	1.3
Rudimentary Horn	0	0
Abdominal	1	1.3
Clinical State		
Ruptured	62	82.6
Unruptured	11	14.6
Slowly leaking	2	2.6

Table 5: Management options adopted.

Surgical/Medical	Number	Percentage
Surgical		
Laparotomy	71	94.6
Salpingectomy	52	69.3
Salpingo-oophorectomy	13	17.3
Salpingostomy	2	2.6
Cornual Resection	3	4
Evacuation of abd. Preg	1	1.3
Laparoscopy	2	2.6
Medical		
Methotrexate	2	2.6

Table 6: Post operative Requirements and complications

	No. of patients	Percentage
Blood Transfusion	53	70.6
MICU Admission	7	9.3
Hospital. stay>10days	0	0
Wound Infection	0	0
Fever	32	42.6%

Discussion

Age was not a significant risk associated with ectopic pregnancy in this study. However recent studies have shown a significantly increased risk in women aged 40 and over (4,5). Cumulative risk factors associated with getting pregnant at an older age may be responsible for this increased risk of ectopic pregnancy.

The reported risk factors for ectopic pregnancy include PID, post abortal and postpartum sepsis, previous ectopic, tubal recanalization and previous caesarean etc. The most identified risk factors in this study were mainly PID and induced abortions followed by non-contraceptive use, Depo provera and abdominal surgeries.

Pelvic inflammatory disease (PID) was the principal etiologic factor in this study. This finding is consistent with the internationally identified risk factors for the overall increase in the incidence of ectopic pregnancy. The majority of patients were not using any contraception prior to the antecedent conception that resulted in an ectopic pregnancy. A large percentage in this study had one or more induced abortions, which were illegally performed under septic conditions because of the very restrictive laws on abortion. No doubt, the complicated induced abortions add greatly to the list of risk factors associated with ectopic pregnancy. Though the rate of repeat ectopic is reported to be 4-27%, it was only 2.6% in this study.

The reduced risk of ectopic in condom users is not surprising (1.3%) in this study. Condom not only prevents unwanted pregnancies but also the, the sexually transmitted diseases, one of the major risk factors for ectopic pregnancy. In this study

progesterone (Depo provera) users constituted 16.5 % of the patients. This slightly increased risk could be due to the inhibitory effect of progesterone on tubal motility.

The common risk factors for ectopic pregnancy such as STDs, PIDs and induced abortions are preventable. Educational messages intended to improve knowledge on family planning methods would help in reducing the incidence of ectopic pregnancy by reducing the prevalence of PID and unwanted pregnancies. Sex education and the use of effective contraception must be strictly stressed upon besides liberalizing the abortion laws.

References

1. Doyle MB, DeChemey AH, Diamond MP. Epidemiology and etiology of Ectopic Pregnancy. *Obstet Gynaecol Clin North Am* 1991; 18: 1-17
2. E P Gharoro & Igbafe A A Ectopic pregnancy revisited in Benign city, Nigeria: Analysis of 152 cases. *Acta Obstet Gynaecol Scand* 2002; 81: 1139-1143
3. Orhue AAE, Unuigbo JA, Ogbeide WE. The contribution of previous induced abortion to tubal ectopic pregnancies. *West Afr J Med* 1989;8: 257-63.
4. Simms I, Rogers PA, Nicoll A. The incidence of demographic change and cumulative risk of pelvic inflammatory disease on the incidence of ectopic pregnancy. *Epidemiol Infect* 1997; 119: 49-52.
5. Storeide et al. The incidence of ectopic pregnancy in Hordaland county, Norway 1976-1993. *Acta Obstet Gynaecol Scand* 1997; 76:345-9.