

Trends in ectopic pregnancy in Ilorin, Nigeria

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ABSTRACT

Objective: To determine the incidence, trends aetiological factors, clinical presentation and management of ectopic pregnancy at the University of Ilorin Teaching Hospital, Ilorin, Nigeria.

Methods: Retrospective study of ectopic pregnancies at the University of Ilorin Teaching Hospital, Ilorin, Nigeria.

Results: The incidence of ectopic pregnancy during the period was 1 in 69 deliveries or 1.4%. When compared with the incidence of 0.9% between 1987 and 1991, a one and a half increase is noted. Majority of the patients 139 (75.5%) were of low socio-economic status and of low parity 113 (61.4%). The common associated aetiological factors identified included previous induced abortion 105 (57.1%), previous pelvic inflammatory disease 39 (21.1%) and intrauterine contraceptive device 13 (7%). The recurrence rate was 26 (14.1%).

Conclusion: The incidence of ectopic pregnancy is on the increase. Measures to reduce the rising incidence include prompt and adequate treatment of pelvic inflammatory disease and sexually transmitted disease.

Keywords: Ectopic pregnancy, Ilorin, Trend.

Introduction

Ectopic pregnancy is a tragedy of reproduction. Apart from being a form of reproductive failure in the index pregnancy of affected women, such women have a 7 – 15% chance of recurrence¹ and only 40 – 60% chance of conceiving after surgery.² It is 10 times and 50 times as dangerous as vaginal

delivery and induced abortion respectively,¹ and an important cause of maternal mortality.

The incidence of the condition varies from country to country and within the same geographical region, depending on the risk factors in the population concerned.³ In Nigeria, it varies between 0.28% and 4.4% of deliveries.^{4,5} It is between 2.3% and 4.1% of deliveries

in Ghana.^{6,7} In the United State, it is more than 1% of all pregnancies,¹ while in the United Kingdom, it is 0.3% of mature pregnancy.² There is evidence that the incidence both in absolute number and rate is increasing two to four folds in the developed countries.¹⁻³ Some of the reasons for this increase include increasing prevalence of sexually transmitted disease which is known to cause tubal damage; increasing popularity of contraception that prevents intrauterine but not extrauterine pregnancies; increased induced abortion complicated by infection and previous pelvic surgery.

The aim of this review is to determine the incidence and trend of ectopic pregnancy, which is compared with previous report, associated aetiological factors, clinical presentation and management at the University of Ilorin Teaching Hospital, Ilorin, Nigeria.

Materials and Methods

The cases of ectopic pregnancies between January 1992 and December 1996 at the University of Ilorin Teaching Hospital, Ilorin were reviewed. During the period, there were 13,952 deliveries and 201 cases of ectopic pregnancy were treated. Five cases were abdominal pregnancies. Of the remaining 196 cases, 184 cases records contained sufficient information and were analysed with respect to age, parity, associated aetiological factors, recurrence rate, and educational status of patient, husband's education, clinical presentation and surgical management. Social class of patient was based on patient's educational level and husband's education.⁸

Results

The overall incidence of ectopic pregnancy in this study is 1 in 69 deliveries or 1.4%. Table 1 shows the age distribution of the patients. The age ranged between 14 and 44 years with a mean of 28.3 years. A third, 61 (33.2%) of the patients were in 25 – 29 age group, while 6 (3.3%) were aged 40 years and above. Table 2 shows the parity distribution. One hundred and thirteen (61.4%) of the patients were of low parity (0 – 2), while 20 (10.9%) were grand multiparous. Mean parity was 1.8.

The major clinical symptoms and signs in order of preponderance are shown in table 3. Abdominal pain was the commonest clinical symptoms occurring in 179 (97.3%) of the patients, while abdominal tenderness was elicited in 178 (96.7%) of cases. Nausea and vomiting were present in 47 (25.5%) of cases, while 25 (13.6%) of the patients were admitted in a state of hypovolaemic shock as a result of blood loss. Diarrhoea was present in 24 (13%) of cases.

Majority of the patients were of low socio-economic status as 139 (75.5%) of the patients have no education or attended only primary school, while their husbands were not professionals, businessmen or top civil servants. One hundred and five (57.1%) had previous induced abortion (Table 4). The highest number of induced abortion was 4. Thirty-nine (21.1%) had history suggestive of pelvic inflammatory disease (PID) as a result of sexually transmitted disease (STD), while 33 (17.9%) had previous pelvic surgery in form of appendicectomy 17 (51.5%); tubal surgery 9 (22.3%) and ovarian cystectomy 6 (18.2%).

Table 1: Distribution of patients by age

Age (Year)	No. (%)
14 – 19	7 (3.8)
20 – 24	37 (20.1)
25 – 29	61 (33.1)
30 – 34	46 (25.0)
35 – 39	22 (12.0)
40 – 44	6 (3.3)
Not stated	5 (2.7)
Total	184 (100)

Table 2: Parity of patients with ectopic pregnancy in Ilorin

Parity	No. (%)
0	47 (25.5)
1	39 (21.2)
2	27 (14.7)
3	32 (17.4)
4	16 (8.7)
5	20 (10.9)
Not stated	3 (1.6)
Total	184 (100)

Table 3: Clinical features of ectopic pregnancy in Ilorin

Feature	No. (%)
Abdominal tenderness	180 (97.8)
Abdominal pain	179 (97.3)
Delayed menses/amenorrhoea	148 (80.4)
Vaginal bleeding	125 (67.9)
Cervical excitation tenderness	104 (56.5)
Dizziness/fainting attacks	97 (52.7)
Tachycardia	73 (39.7)
Nausea/vomiting	47 (25.5)
Full pouch of Douglas	45 (24.5)
Shock	25 (13.6)
Adnexal mass	25 (13.6)
Diarrhoea	24 (13.0)

Table 4: Associated aetiological factors in patients with ectopic pregnancy in Ilorin

Associated factor	No. (%)
Previous induced abortion	105 (57.1)
Previous pelvic inflammatory disease	39 (21.1)
Previous pelvic pregnancy	33 (17.9)
Intrauterine device in situ	13 (7.0)

*Some patients had more than one associated aetiological factor

In all, pelvic adhesion was noted in 134 (72.8%) of the patients at operation. Thirteen (7.0%) of the patients had IUCD in situ. Twenty-six (14.1%) of the patients had previous ectopic pregnancy.

The right tube was the site of ectopic gestation in 109 (59.2%) of cases, while the left tube was involved in 75 (40.8%) of cases. The ampulla was the commonest site on the tube in 101 (54.9%), while the isthmus was involved in 42 (22.8%). Three (1.6%) tubal pregnancies were unruptured. Unilateral salpingectomy was the surgical procedure of choice in 165 (89.7%) of the patients. Three (1.6%) of the patients had linear salpingostomy. There were four maternal deaths, giving a maternal mortality rate of 19.9/1,000 ectopic pregnancies.

Discussion

The incidence of ectopic pregnancy in this study of 1 in 69 deliveries or 1.4% further confirms that the condition is common in our community. It is higher than the 1:111 deliveries or 0.9% reported from this centre for the year 1987 to 1991.⁹ The increased incidence fall short of the 2 to 4 fold increase noted in the Western World.¹⁻³ Comparison across national boundaries may however, be difficult because of the fact that population groups have different risk factors and the denominators used in the calculation of the rate varies widely. The denominator used includes total births, live births, total pregnancy and number of women aged between 15 and 44 years.

The availability of assisted conception procedure and improved methods of diagnosis and reporting may contribute to the rising incidence in the Western World⁽³⁾. There is the possibility of

underreporting in this part of the world because of missed cases of early ectopic pregnancy, which resolve spontaneously. However, the incidence reported in this study still fall within the incidence reported from other developing countries.^{6,7}

Previous induced abortion has been noted to increase the risk of ectopic pregnancy.^{10,11} In the present study, all patients with a history of previous induced abortion had evidence of pelvic infection as demonstrated by the presence of pelvic adhesions. This finding further confirm the fact that induced abortion is a high risk factor in ectopic pregnancy.

There is controversy about the effect of intrauterine contraceptive device (IUCD) on the absolute number of ectopic pregnancy. While some authors are of the opinion that intrauterine contraceptive device increase the risk of ectopic pregnancy particularly if used longer than 2 years.¹² Others are of the opinion that there is no real increase in the risk of ectopic pregnancy in IUCD users.¹³ Recent reports however, claimed that the risk of infection associated with IUCD is largely limited to the first four months after its insertion and to women exposed to sexually transmitted diseases and that IUCD offer some protection to ectopic pregnancy.^{14,15} Thirteen (7.0%) of the patients had IUCD in situ at the time of diagnosis of ectopic pregnancy. This falls within the general quoted incidence of 4.3% - 8.9%.¹⁶

Only 31 (21.1%) of the patients gave a history suggestive of pelvic inflammatory disease (PID) as a result of sexually transmitted disease (STD) inspite of the high incidence of STD in the community. It is however possible that some of the patients failed to admit to the disease because of the shame associated with it.¹⁰

The high percentage of 75.5% of patients of low socio-economic condition in this study has been reported before.¹⁰ They are likely to engage in induced abortion, which is usually performed by non-physician, and if the procedure is complicated, they seek medical attention late.^{10,11} In addition, they are highly sexually active and when they contact STD, they are unlikely to seek proper medical care and resort to buying of drugs from patent medicine stores with the resultant effect of poor treatment leading to tubal damage.

In the present review, 57.7% of the patients are below the age of 30 years. It is thus clear that a lot of our young women in their prime of reproductive years are subjected to a lot of emotional and psychological problems of failure of reproduction associated with ectopic pregnancy in an environment where a lot of premium is placed on childbearing. Majority of our patients (61.1%) are also of low parity (0 – 2).

The maternal mortality rate of 19.9/1,000 is higher than the 12.5/1,000 ectopic pregnancies of the previous report from this centre. To reduce the maternal mortality rate associated with ectopic pregnancy, a high index of suspicion is needed in the diagnosis of the condition and blood bank adequately stocked for prompt and adequate blood transfusion.

In conclusion, the incidence of ectopic pregnancy when compared with the previous incidence reported from this centre is on the increase. This rising incidence can be reduced by prompt and adequate treatment of sexually transmitted diseases, legalization of abortion so that it can be performed by medical personnel, careful selection of patients for IUCD use, and improvement

of the socio-economic condition of the populace.

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