

Ectopic Pregnancy in Ilorin, a Review of 278 cases.

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ABSTRACT

Two hundred and seventy eight cases of ectopic pregnancies managed over an eight year period were reviewed. The aetiology essentially revolved round tubo-peritoneal factors. Diagnosis in most cases was by clinical judgement, because most of them presented late (83.04%) but sometimes urinary human chorionic gonadotrophin and trans-abdominal ultrasound were employed in the diagnosis. Treatment was essentially surgical. Conservative management were employed in 6 cases (salpingostomy). There was no medical management. Morbidity and mortality however, were very low. The factors responsible for the high rate of late presentation and low incidence of conservative management were discussed. Suggestions were also offered on how to improve the present level of care.

KEY WORDS: Ectopic pregnancy; Ilorin; Review.

INTRODUCTION

Ectopic pregnancy is a condition of immense gynecological importance the world over and particularly in this part of the world because of late diagnosis and the increased incidence of pelvic inflammatory disease (P.I.D) from sexually transmitted diseases (S.T.Ds), abortions and puerperal sepsis¹. It is a major cause of morbidity and sometimes mortality in gynecological practice⁵.

The steady increase in the overall incidence of ectopic pregnancy has led to the development of sophisticated methods of diagnosis, especially in the developed world where over 70% are diagnosed unruptured^{6,7}. It has also led to new approaches to management, which has produced encouraging results with restoration of tubal patency in over 80% in some cases^{3,6,8}.

It is in the light of these recent developments that this study was undertaken to determine the current incidence evaluate the pattern of presentation, the methods of diagnosis and treatment modalities currently available in this centre with reference to what obtains in the developed countries so as to proffer solutions to improving the management of this condition.

MATERIALS AND METHODS

The study group consisted of all patients who were treated for ectopic pregnancy at the University of Ilorin Teaching Hospital (Maternity Wing) Ilorin, Nigeria from 1st January 1991 to 31st December, 1998. Data was obtained from the case notes of all the patients that were available for scrutiny and these include: age and parity, duration of amenorrhoea, incidence of major symptoms, relevant past medical history including intrauterine contraceptive usage, methods of diagnosis and confirmation, interval between presentation and surgery, site of the ectopic pregnancy, evidence of previous pelvic adhesions, whether the ectopic was ruptured or unruptured, treatment offered, blood transfusions, maternal morbidity and mortality.

RESULTS

During the period under review 34,861 deliveries and 356 ectopic pregnancies were recorded. The result showed that for every 98 deliveries, there was one ectopic pregnancy. Out of the 356 cases of ectopic pregnancy, 278 (78.01%) case notes contained the necessary information needed for scrutiny and this formed the basis of our analysis.

Table I shows the age and parity distributions of the patients. The ages ranged between 15-45 years.

Table I: Age and Parity Distribution

Years	No	Percentage
Less than or equal to 20	50	17.99
21 - 30	139	50.00
31 - 40	58	20.86
41 and above	31	11.15
Total	278	100
Nulliparous	51	18.35
Para 1	78	28.06
Para 2	56	20.14
Para 3	40	14.39
Para 4	37	13.31
Para 5	16	5.76
Total	278	100

Table II shows the symptoms at presentation

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Table II: Incidence of Major Symptoms

Symptoms	No	Percentage
Lower abdominal pains	252	90.64
Amenorrhoea	215	77.4
Vaginal bleeding	207	74.46
Nausea/vomiting	121	43.53
Fainting/dizziness	111	39.91
Anorexia	58	20.86
Shock	40	14.39
Shoulder tip pain	33	11.87
Diarrhoea	16	5.76
Constipation	21	7.55
Fatulence	11	3.96

The length of amenorrhoea is shown in table III

Table III: Duration of Amenorrhoea

Duration	No	Percentage
Nil Amenorrhoea	63	22.66
1 - 7 weeks	144	51.80
8 - 12 Weeks	65	23.38
12 weeks and above	6	2.16
Total	278	100

The relevant past medical history is shown in table IV.

Table IV: Relevant Past Medical History

History	No	Percentage
Previous induced abortion	60	21.58
Pelvic inflammatory disease	49	17.63
Previous abdomino-pelvic surgery/caesarean section	27	9.71
Previous spontaneous abortion	29	9.71
Previous ectopic pregnancy	17	6.12
Contraceptive practice (IUCD only)	13	4.68

Table V shows the diagnostic method used.

Table V: Diagnostic Methods Employed

Methods	No of Patients	True +ve	True -ve	False +ve	False -ve
Duration and curettage	NI				
Laparoscopy	3	2		1	
Ultrasound-graphy	200	128	45	4	27
Urinary pregnancy test	124	86	13	8	17
History and physical examination only	96	95(98.96%)		1(1.04%)	
Abdominal palpation	40	38(95.0%)		1(2.5%)	1(2.5%)

	Ultrasound	Pregnancy Test
Sensitivity	96.97%	91.49%
Specificity	62.5%	43.33%

The site of the ectopic pregnancy is shown in Table VI.

Table VI: Site of the Ectopic Pregnancy

Site	No	Percentage
Ampulla	130	47.45
Interstitial cornu	47	17.15
Isthmus	49	17.15
Fimbrial	24	8.76
Tubo-ovarian	7	2.52
Primary ovarian	6	2.19
Abdominal	5	1.82
Bilateral ruptures	2	0.73
Rudimentary horn	1	0.36
Intrauterine pregnancy	3	1.09
Total	274	100

Total ruptured	133(85.04%)
Total unruptured	(14.96%)

Table VII shows the interval between presentation and surgery. Most of the patients were operated within 24 hours of presentation.

Table VII: Interval between Presentation and Surgery

Days	No	Percentage
< 24 Hours	167	60.78
25 to 48 hours	78	28.39
49 to 96 hours	25	9.09
> 96 hours	5	1.80

Table VIII shows the type of surgical procedure carried out.

Table VIII: Surgical Procedures Carried Out

Procedure	No	Percentage
Salpingectomy	191	70.22
Cornual resection	51	18.75
Salpingo - Oophorectomy	7	2.52
Oophorectomy only	5	1.84
Excision of abdominal pregnancy	6	2.21
Salpingectomy contralateral salpingostomy	2	0.74
Excision of rudimentary horn	1	0.37
Bilateral salpingectomy	2	0.74
Repair of corpus luteum rupture	1	0.34
Total	272	100.00

Evidence of pelvic inflammatory disease is shown in Table IX.

TABLE IX: Evidence of Previous Pelvic Inflammatory Disease

Finding	No	Percentage
Evidence of P.I.D.	149	54.98
No evidence of P.I.D.	92	33.93
No comment on state of pelvic organ	30	11.07
Total	271	100

Table X shows the amount of Blood transfused as well as maternal morbidity and mortality

Table X: Maternal Morbidity and Mortality/Blood Transfusion

Type of Morbidity or Mortality	No	Percentage
Pyrexia (temp 38°C and above)	55	19.78
Anaemia (PCV < 30%)	70	25.18
Urinary tract infection	29	10.43
Wound sepsis	34	12.23
Wound dehiscence	3	1.08
Pelvic sepsis	7	2.52
Maternal death	3	1.08
Pints of Blood	No	Percentage
4	10	3.64
3	49	17.82
2	153	55.64
1	57	20.73
0	6	2.18
Total	275	100

DISCUSSION

The incidence of ectopic pregnancy in this series was 1.02%. This is higher than the 0.67% reported by Stabile and Grondzinskas for the western countries⁶. It is however lower than the 2.31% and 1.2% reported for Benin and Ile respectively^{1,2,9}. The difference in incidence may, however, be due to the denominator used. The acceptable standard is using the number of total birth.

The incidence is highest in the 16-30 years age group, they being the most sexually active as well as the most fertile group. This is in conformity with the findings of Oronsaye and Odiase¹. Quite a number of the patients below 25 years of age were students. This emphasises the need for sex education and family planning in schools. There were just 3 patients above the age of 40 years in this series. This is attributable to the declining fertility in this group.

Low parity forms another high risk group (para 0 to 2) constituting about 66.54%. The number of nulliparous patients (8.35%) is higher than most of other results in other centres^{2,10}. This may be related to early age of sexual activities in this environment.

The commonest symptom was low abdominal pain and it occurred in 90.64% of the patients, in agreement with the findings of other workers¹. Amenorrhoea, vaginal bleeding, fainting and dizziness, shoulder tip pain, constipation and diarrhoea all had similar occurrences with other workers⁹ confirming the uniformity of ectopic symptomatology the world over.^{6,7,9,11}

Previous induced abortions as past medical history was volunteered by 21 (58%) of the patients which, when coupled with those with history of past pelvic inflammatory disease (17.63%), suggest a high incidence of pelvic infections in this environment and therefore, a major aetiological factor in the causation of ectopic pregnancy^{1,12,13}. The same argument of infection following poor surgical management accounts for the high incidence of ectopic pregnancy following previous abdomino-pelvic surgery (9.71%). It should be noted that IUCD as a risk factor for ectopic pregnancy (4.68%) in this review is much higher than the 0.2% reported by Iloabachie¹³. It is however possibly due to the fact that IUCD is the commonest method of contraception in this environment¹⁴.

In this series, majority of the patients had ruptured ectopics 233 (85.04%) either presenting acutely or subacutely (slow leaking). Out of this total of ruptured ectopics, about 34.35% of them, mostly with acute presentations, were diagnosed only from the history and physical examination and ancillary investigations were sometimes employed by doctors with less experience.

The results of positive culdocentesis/abdominal paracentesis was similar to the 85% reported by Kadar¹⁵ essentially because most cases of ruptured ectopics present acutely. The sensitivity and specificity of ultrasound (transabdominal) and pregnancy test were also similar to those reported by other workers^{6,15}.

The sensitivity of ultrasound (transabdominal) however, appears to be in the upper limit essentially because most of the patients in the series have ruptured at presentation increasing the pick up rate. The new transvaginal ultrasound in combination with serum beta-HCG are better in terms of pick up rate of subacute ectopics.

The result of positive culdocentesis/abdominal paracentesis was similar to the 85% reported by Kadar¹⁵ essentially because most cases of ruptured ectopics present acutely. Pregnancy test pick up rate of 82.61% also agrees with Kadar findings¹⁵. The ultrasound (transabdominal) sensitivity and specificity in this series agree with findings elsewhere¹, but less than that of the transvaginal scan^{16,17} which is not yet available in this centre.

As earlier stated, the commonest site of ectopic gestation in this series was the ampulla with 47.45%, which is in agreement with findings all over the world. The incidence of cornual ectopic was much higher than figures quoted by other workers^{1,2,9,18}. A high incidence of chlamydia infection which has been linked with cornual ectopics is a possibility¹⁹.

Bilateral ectopic pregnancy is said to be exceedingly rare but 2 cases were found in this series. One of the cases was confirmed by histology in a patient who had salpingectomy plus contralateral salpingostomy to preserve her fertility, while in the other patient it was not confirmed by histology because she had completed her family. This finding suggested thorough examination of pelvic structure during surgery for ectopics pregnancies.

The 3 cases of intrauterine pregnancies misdiagnosed as ectopic represented just 1.09% of the cases which is much lower than the 20-40% quoted by Kadar¹⁵. This is probably because cases of suspected ectopic are few, translating to a reduced tendency for doctors to suspect ectopic in pregnant women with vague complaint in early pregnancy.

Salpingectomy was the commonest procedure, even in unruptured cases and those with repeat ectopic pregnancies, because of lack of drugs for medical management, but more so because most of the patients are not likely to report in the hospital for close monitoring in subsequent pregnancies. This is apart from the fact that most cases of ectopic pregnancy are handled by junior doctors. Conservative surgical

procedures like manual expression, segmental resection and anastomosis with or without the use of a laparoscope are some of the currently advocated modalities of treatment^{6,8}. The use of methotrexate in haemorrhage control resulting from residual trophoblastic tissue and cornual/interstitial pregnancy has been described^{3,16,19}.

The importance of previous pelvic infection in the aetiology of ectopic pregnancy was shown by the 149 (54.98%) patients who had some physical evidence of pelvic adhesions at surgery. Kadar¹⁵ reported gross or histological evidence of infection in 30-35% of cases. It must be noted that much less number of patients volunteered the history of previous P.I.D. Many pelvic infections may go unnoticed in some women.^{1,19}

The interval between first consultation and surgery is said to be 48 hours in 40-50% of cases³. This is contrary to the findings in this study where just approximately 10% had surgery after 48 hours; the rest less than 2 days and indeed about 60% before 24 hours. This is a further reflection of the late presentation in this environment with evidence of intraperitoneal haemorrhage.

Morbidity was low in this series, and were mainly that of pyrexia which was due to malaria and in some few cases, reactions to surgery. Most of the 29 patients with packed cell volume values less than 30% had values around 28% and 29% post surgery and were not transfused. Auto-transfusion as recommended^{5,20} is not in practice in this centre because of the readily available blood transfusion services. Though, it should be noted that auto-transfusion may be necessary in some developing countries because of non availability of blood, HIV infection and screening difficulties. Urinary tract infection was a bit common after surgery which calls for an improvement on the present aseptic technique of catheter passage. There were 34 (12.23%) patients with wound infection which also strengthens the need to properly prepare patients aseptically before surgery and not rush past this early procedure because of the urge to save the patients' lives. The 3 (1.08%) maternal deaths occurred in patients brought in severe shock and in whom resuscitation efforts failed before surgical intervention could be attempted.

CONCLUSION AND RECOMMENDATION

Since ectopic pregnancy is a gynecological condition of such a high prevalence, which is likely to continue to increase because of various factors discussed, it is necessary to devise ways and means of early detection and treatment. This could be achieved by providing adequate materials and manpower as well as general

measures that will ensure early presentation in hospital.

Bearing in mind, however, that it may take a long time before many of our centres acquire the necessary technology and expertise, more efforts should be directed at prevention. Thus, we should embark on health education (especially sex education) in higher institutions since many of the patients happened to be students. Family planning practice and increased level of awareness in the society should be carried out simultaneously with health education with the aim of alerting women to present early in hospital at the slightest feeling of pain or spotting of blood per vagina in pregnancy.

Also, a sound surgical technique with attention to haemostasis, liberal blood transfusion, the presence of doctors experienced in tubal surgery and the use of chemotherapeutic agents when indicated, will improve the present level of management. These will also improve fertility in patients with previous ectopic pregnancy.

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