

Ruptured Tubal Pregnancy In Makurdi, North Central Nigeria

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ABSTRACT

BACKGROUND: Ruptured tubal pregnancy remains a major cause of early foetal wastage and maternal mortality in Nigeria and other developing countries. This study was done to determine the incidence, predisposing factors, clinical presentation and management options of ruptured tubal pregnancy at the Federal Medical Centre Makurdi.

METHODOLOGY: A retrospective descriptive study of 35 cases of ruptured tubal pregnancy managed at the Federal Medical Centre, Makurdi, between January 2004 and December 2006 was conducted.

RESULTS: The incidence of ruptured tubal pregnancy was 0.87% of total births (1 in 114 deliveries) and accounted for 94.6% of all ectopic pregnancies. There was a rising trend in the incidence of ruptured tubal pregnancy from 0.65% in 2004 to 1.09% in 2006. Identified risk factors include previous pelvic infection and previous induced abortions. Abdominal pain (100%), vaginal bleeding (65.7%), dizziness (62.9%) and amenorrhoea (57.1%) were the commonest symptoms. The ampulla was the site of rupture in 27(77.1%) patients. All patients had laparotomy. Unilateral total salpingectomy was done in 31(88.5%) patients. There was no maternal death in the cases managed.

CONCLUSION: The incidence of ruptured tubal pregnancy is relatively low at the Federal Medical Centre Makurdi. Health education of women in the reproductive age on safe sex and eradication of unsafe abortion and early treatment of pelvic infections will prove useful preventive measures.

Key words: Pregnancy, Tubal, Ectopic, Ruptured, Makurdi, Nigeria

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INTRODUCTION

Ectopic pregnancy continues to be a major surgical emergency in gynaecology¹ and remains a major cause of maternal mortality and morbidity as well as early foetal wastage in Nigeria and other developing countries.^{2,3,4,5}

Patients usually present with the ruptured variety, with attendant peritoneal flooding and its clinical consequence

unlike the situation in the developed countries where up to 75% are unruptured.^{6,7}

There is evidence that the incidence of ectopic pregnancy has been rising in many countries while the case fatality rate has been decreasing.^{7,8} Ectopic pregnancy has a protean manifestation.⁹ The Classic triad of amenorrhoea, irregular vaginal bleeding and abdominal pain is not always present and occurs usually at more advanced gestational age and in patients in whom ectopic pregnancy has ruptured.¹⁰ The aim of this study was to determine the incidence, predisposing factors, clinical presentation and management options of ruptured tubal pregnancy at the Federal Medical Centre Makurdi.

METHODOLOGY

This was a retrospective descriptive study of 37 consecutive cases of ectopic pregnancy managed at the Federal Medical Centre Makurdi over a three year period, between January 2004 and December 2006. The case files/records of all the patients that were managed for ectopic pregnancy during the study period were retrieved from the medical, theatre and gynaecological ward records and studied. The data extracted included age, parity, estimated gestational age, presenting symptoms, historical predisposing factors, site of ectopic pregnancy, nature of tubal pregnancy (ruptured or unruptured) and type of surgery done. The data was manually analyzed.

RESULTS

During the 3 year study period between January 2004 and December 2006, there were 4011 deliveries and 37 ectopic pregnancies, 35 of which were ruptured tubal pregnancies giving an incidence of 0.87% (1 in 114 deliveries) and accounting for 94.6% of all ectopic pregnancies. The yearly incidence of ruptured tubal pregnancy revealed a rising trend from 0.65% in 2004 to 0.87% in 2005 and 1.09% in 2006 (Table I).

Table I: Trends In Ruptured Tubal Pregnancy At The Federal Medical Centre Makurdi, 2004 2006

Year	Number of deliveries	Number of ruptured tubal pregnancies	Frequency %
2004	1375	9	0.65
2005	1263	11	0.87
2006	1373	15	1.09
Total	4011	35	0.87

The patients ranged in age from 18-41 years with a mean of 27 ± 7.2 S.D. The largest number of ruptured tubal pregnancies 12(34.2%) were seen in the 20-24 years age group. However, the incidence of ruptured tubal pregnancy was highest in the 35-39 years age group (1.8%) (Table II).

The mean parity was 1.7 ± 1.6 S.D. The nulliparae had the largest group of patients; 12(34.2%). Patients with parity of 1 - 4 accounted for 54.2% while 11.4% were grand multiparae. The highest incidence of 1.6% was seen in the nulliparous group while the lowest incidence of 0.4% occurred in the grandmultiparous group (Table II).

Of the 35 patients with ruptured tubal pregnancy, 13(37.1%) had previous pelvic infection, 11(31.4%) had induced abortion previously and 5(14.3%) had a history of infertility (Table III).

Table II: Age, Parity And Ruptured Tubal Pregnancy At The Federal Medical Centre Makurdi.

Characteristic	Number of deliveries	Number of ruptured tubal pregnancies	% of total ruptured tubal pregnancies	Frequency per 100 deliveries %
Aged group (years)				
<20	360	2	5.71	0.55
20-24	902	12	34.29	1.33
25-29	1372	9	25.71	0.65
30-34	951	5	14.29	0.53
35-39	334	6	17.14	1.80
40	92	1	2.86	1.09
Parity				
0	751	12	34.29	1.60
1	697	7	20.00	1.00
2	652	5	14.29	0.77
3	473	4	11.43	0.85
4	449	3	8.57	0.67
e5	989	4	11.43	0.40

Table III: Relevant Past Medical History And Ruptured Ectopic Pregnancy At The Federal Medical Centre Makurdi.

History	Frequency	Percentage (%)
Previous pelvic infection	13	37.1
Previous induced abortion	11	31.4
History of infertility	5	14.3
Previous intrauterine contraceptive device	2	5.7
Previous ectopic pregnancy	1	2.9

Table IV: Incidence Of Major Symptoms Of Ruptured Ectopic Pregnancy At The Federal Medical Centre Makurdi.

Symptoms	Frequency	Percentage (%)
Abdominal pain	35	100.00
Vaginal bleeding	23	65.7
Dizziness	22	62.9
Amenorrhoea	20	57.1
Fainting attack	7	20.0
Collapse/frank shock	6	17.1
Fever	5	14.3
Abdominal swelling	4	11.4
Dysuria	2	5.7

The leading presenting complaints were abdominal pain in 35(100%) patients, vaginal bleeding in 23(65.7%), dizziness in 22(62.9%) and amenorrhoea in 20(57.1%). Six (17.1%) of the patients were in shock at presentation (Table IV).

All the patients had laparotomy. The anatomical sites of ruptured tubal pregnancy seen in the patients included 27(77.1%) in the ampulla, 4(1.4%) in the isthmus, 2(5.7%) in the interstitial region and 2(5.7%) in the fimbrial region.

Thirty one (88.5%) of the patients had unilateral total salpingectomy, 3(8.5%) had unilateral partial salpingectomy and 1(2.8%) had unilateral cornual resection.

DISCUSSION

The incidence of ruptured tubal pregnancy at the Federal Medical Centre Makurdi of 0.87% of deliveries is lower than the reported incidence of ectopic pregnancy in developed countries (France 2.0%, Finland 2.8%, USA 2.2%).^{11,12,13} It is however closer to previous findings from the geographical North of Nigeria, Kaduna 1.4%¹, Ilorin 1.4%¹⁴, but much lower than figures reported from the geographical South of Nigeria (Lagos 4.38%¹⁵, Benin 1.68%¹⁶). The perceived lower prevalence of chronic pelvic inflammatory disease in the Northern part of Nigeria may explain the comparatively lower incidence of ruptured tubal pregnancy.¹⁷

Patients aged between 20 and 34 years constituted 74.2% of the study population. In a similar study conducted in Lagos, they accounted for 85.7%.¹⁵

This could be the result of tubal damage occurring as a consequence of pelvic infections from inappropriate obstetric care or from unsafe abortion.¹ Other yet to be determined factors may also be implicated.¹ The mean parity of 1.7 in this study is in keeping with the widely reported low parity in patients with ectopic pregnancy.^{1,4,5,15,16} The nulliparous patients accounted

for 34.2% of the study population which is higher than 22.81% reported in Kaduna¹ but lower than the 49.3% reported in Benin city.¹⁶ The high figure in this study may not be unconnected to the early age of sexual debut in our environment as another study has shown that 53% of Nigerian women aged 15-19 years have had sexual intercourse.¹⁸

Ruptured tubal pregnancy accounted for 94.6% of all ectopic pregnancies in this study. This is consistent with previous reports from developing countries.^{1,8,14,15,16} In contrast, less than 30% of tubal pregnancies are ruptured in developed countries, where majority of cases are diagnosed at an early stage before rupture.⁸

This study revealed that 37.1% of patients had previous pelvic infection while 31.4% had induced abortion previously. This is suggestive of a high incidence of pelvic infection in this environment which may predispose to ectopic pregnancy as reported elsewhere.¹⁹

The ampulla was the site of rupture in 77.1% of ruptured tubal pregnancy in this study. This agrees with findings worldwide.^{1,4,15,16}

All the patients in this study had laparotomy. Like elsewhere in this country, laparotomy remains for now, the

only surgical intervention method at our disposal for the management of ectopic pregnancy.¹ This is due in part, to non availability of operating laparoscopes which have been shown to be very useful.²⁰ More over, significant haemoperitoneum from ruptured tubal pregnancy makes laparoscopic surgery less than ideal.¹ This is also a limiting factor to the use of cytotoxic drugs as reported by other researchers.^{21,22}

The commonest surgical procedure offered to patients with ruptured tubal pregnancy in this study was total salpingectomy (88.5%). This contrasts with findings in Kaduna¹ where 69.8% of patients had partial salpingectomy partly because the procedure is often easier than total salpingectomy.¹

Ectopic pregnancy remains an important gynaecological emergency in our environment. Health education of women in the reproductive age on safe sex, eradication of unsafe abortion, early treatment of pelvic infection and good quality obstetric care will prove useful preventive measures. A high index of suspicion and up-to-date diagnostic methods will enhance early detection of ectopic pregnancy for conservative or non surgical treatment options with attendant benefits.

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