

Pattern and Outcome of Gynaecological admissions at a Nigerian Tertiary Care Centre

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Abstract

Context: Hospital based data, when monitored over a period of time may help in evaluating changes in disease pattern and mortality, thus assisting health planners and policy makers to re-order their priority.

Objective: The main objective of this study is to review the gynaecological admissions and deaths over a five-year period.

Subjects and Methods: The case notes of all admissions and deaths on the gynaecological ward between January, 1996 and December 2000 were reviewed. Analysis were made of the various diagnoses and outcome, length of hospitalization, turn around period, number of patients per bed per year and bed occupancy.

Results: There were 803 admissions over the study period, out of which 429 (53.4%) were emergencies while 374 (46.6%) were electively admitted for surgery. Two hundred and seventy five (34.2%) patients had purely medical treatment while 528 (65.8%) had surgical management. There were 9 patients per bed per year with a turn around (turnover) of 11.5 days and bed occupancy of 64.3%. Twenty five (3.1%) patients discharged themselves against medical advice and there were 23 (2.9%) deaths. The interval between admission and death ranged from 1 to 37 days with a mean of 9.5 ± 3.2 days. All the deaths occurred in the emergency group. Abortion accounted for 15.6% of total gynaecological admissions and was the commonest disease entity responsible for gynaecological admission. Mortality was highest for (malignant) neoplasms accounting for 56.5% of deaths. This was followed by infections, 43.5% with post abortal sepsis contributing as much as 30.4% of fatality.

Conclusion: The study recommends improvement of preventive strategies towards complications of early pregnancy especially abortion in the community and encourages better admission policy, provision of appropriate facilities and manpower to improve the hospital services.

Key words: Pattern, outcome, gynaecological admissions, fatality.

Introduction

Community based studies are the most accurate and reliable source of information on disease prevalence to health planners and managers. There is dearth of such studies in developing countries because of high cost and logistics of carrying out such studies. However, hospital based disease frequency often offers a second best alternative. Such hospital based data, when monitored over a period of time may help in evaluating changes in disease pattern and mortality, thus assisting health planners and policy makers to re-order their priority. There have been very few reports on the pattern and outcome of gynaecological admissions from tertiary hospitals in Nigeria¹. However, none has been reported from Olabisi Onabanjo University Teaching Hospital, Sagamu and this therefore necessitated carrying out this retrospective study at the hospital.

The hospital is a tertiary health facility serving all the towns in Ogun State as well as adjoining parts of Lagos State. The gynaecological ward is made up of 14 beds. Admissions are mostly through the accident and emergency department, gynaecological out-patient and general out-patient clinics. This study is aimed at reviewing the gynaecological admissions and deaths over a five-year period.

Subjects and Methods

The case notes of all admissions and deaths on the gynaecological ward between January 1996 and December 2000 were retrieved. Patients without adequate clinical records were excluded from the study. The principal diagnosis for each patient had been coded in the case note in accordance with the International Statistical Classification of Diseases, Injuries and Deaths (ISCD)². The definitive diagnoses were made after patients had been clerked and investigated, and where a causal relationship existed between two diagnoses, the effect was taken as the diagnosis; where there was no relationship between these, more than one diagnosis is made. Analysis were made of the various diagnoses and outcome; length of hospitalization; turn around period, number of patients per bed per year and bed occupancy using the formulae of Barber and Johnson³. dequate clinical records and 7 with inadequate

Results

Over the five-year period, a total of 803 patients with

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clinical records were admitted on the gynaecological ward. Of the 803 with adequate clinical records, 429 (53.4%) were emergencies while 374 (46.6%) were electively admitted for surgery, giving an emergency/elective admission ratio of about 1.2:1. Two hundred and seventy five (34.2%) patients had purely medical treatment while 528 (65.8%) had surgical management. The ages of the patients ranged between 1¼ to 80 years with a mean of 33.8 ± 2.1 years. The length of stay was between 1 to 155 days with a mean of 20.8 ± 5.0 days. There were 9 patients per bed per year with a turn around of 11.5 days and bed occupancy of 64.3%. Twenty five (3.1%) patients discharged themselves against medical advice and there were 23 (2.9%) deaths. The interval between admission and death ranged from 1 to 37 days with a mean of 9.5 ± 3.2 days. All the deaths occurred in the emergency group.

The analysis of the major causes of admission and the fatality rate is as shown in Table 1. Two hundred and twenty eight (28.4%) patients were admitted due to complications of early pregnancy.

Table 1: Causes of admission and fatality rate.

<i>Diagnosis</i>	<i>No.</i>	<i>%</i>	<i>No. Of Fatality</i>	
			<i>deaths</i>	<i>rate(%)</i>
I. Complications of early pregnancy	(228)	(28.4)	*	*
A) Abortion	125	15.6	*	*
B). Ectopic pregnancy including abdominal pregnancy	48	6.0	-	-
C). Others	55	6.8	-	-
II. Neoplasms	(202)	(25.2)		(56.5)
A). Benign	116	14.5	-	-
(V) Uterine fibroid	68	8.5	-	-
(VV). Others	48	6.0	-	-
B). Malignant	86	10.7	13	56.5
(V) Ovarian tumour	36	4.5	10	43.5
(VV). Others	50	6.2	3	13.0
III. Diseases of the genitourinary system.	(200)	(24.9)	-	-
A). Infertility	98	12.2	-	-
B). Vesicovaginal/rectovaginal fistula	38	4.7	-	-
C). Uterovaginal prolapse	9	1.1	-	-
D). Others	55	6.9	-	-
IV. Infections	(138)	(17.2)	(10)	43.5
A). Malaria in pregnancy	48	6.0	-	-
B). Pelvic inflammatory disease	36	4.5	-	-
c). Post-Abortal sepsis	22	2.7	7	30.4
D). Pelvic abscess	16	2.0	-	-
E). HIV in pregnancy	3	0.4	2	8.7
F). Septicemia in pregnancy	2	0.3	1	4.4
G). Others	11	1.3	-	-
V. Injury and Poisoning	(13)	(1.6)	-	-
VI. Gastrointestinal Disorders	(9)	(1.1)	-	-
VII. Respiratory Disorders	(4)	(0.5)	-	-
VIII. Neurological Disorders	(3)	(0.4)	-	-
IX. Blood Disorders	(2)	(0.3)	-	-
X. Musculoskeletal Disorders	(2)	(0.3)	-	-
XI. Mental Disorders	(1)	(0.1)	-	-
XII. Endocrine/nutritional/metabolic/	(1)	(0.1)	-	-
TOTAL	803	100.0	23	100.0

* The fatality as a result of abortion (a complication of early pregnancy) is reflected under post-abort sepsis.

Other disease groupings requiring admission were as follows: neoplasms 202 (25.2%), genitourinary disorders 200 (24.9%) and infectious diseases 138 (17.2%). Less frequent conditions were injury and poisoning 13 (1.6%), gastrointestinal disorders 9 (1.1%), respiratory disorders 4 (0.5%), neurological disorders 3 (0.4%), blood disorders 2 (0.3%), musculoskeletal system disorders 2 (0.3%), endocrine/nutritional/metabolic disorders 1 (0.1%) and mental disorders 1 (0.1%). Complications of early pregnancy constituted 28.4% of all gynaecological admissions and abortion was the commonest disease entity constituting 15.6% of all admissions. Infertility constituted 12.2% while uterine fibroids constituted 8.5% (Table 1). HIV in pregnancy constituted 0.4% of all admissions contributing a fatality of 8.7%. Neoplasms (malignant) recorded the highest fatality with ovarian cancer contributing 43.5% fatality. This was followed by infectious diseases with post-abort sepsis contributing as much as 30.4% fatality.

The frequency of the causes of deaths is as shown in Table 2. Neoplasms accounted for 56.5% of all gynaecological deaths with ovarian malignancy as the leading cause, followed by post-abort sepsis.

Table 2: Frequency of causes of death.

<i>Aetiology</i>	<i>No.</i>	<i>Percentage</i>
Ovarian malignancy	10	43.5
Cervical carcinoma	2	8.7
Sarcoma of uterus	1	4.4
Post-Abortal sepsis	7	30.4
Septicemia in pregnancy	1	4.4
HIV in pregnancy	2	8.7
TOTAL	23	100.0

Discussion

It might be right to assume that cases admitted on the gynaecological wards of teaching hospitals reflect the pattern of diseases in women in the community because the bulk of female health problems (with the exception of a few medical and surgical conditions) are tackled by the gynaecologist. The bases for admission are usually acute needs of patients; the need for highly skilled management, the severity of the patients' illness, the need for surgical intervention and suitability for teaching and research. The higher emergency/elective admission ratio found in this study is not unusual because complications of early pregnancy present as emergencies while a significant proportion of patients with malignancy presented very late, when complications of their conditions required immediate attention. Both disease groups constituted more than half of all the gynaecological admissions in this study. It was not also surprising that surgical intervention was necessary in about two-thirds of all the admissions because most clinical conditions in gynaecology require one form of surgery or the other.

The average length of stay of 20.8 days and turn around of 11.5 days with 64.3% bed occupancy reported in this

study differ from that previously reported from University College Hospital, Ibadan with a turn around of 1.5 days and a length of stay of 22.2 days with bed occupancy of 93.8%¹. Hospital services are generally in high demand in Nigeria and this calls for an improved admission policy that will record an acceptable hospital performance of bed occupancy of not less than 75% with a turn around of between 1 and 3 days and a marked decrease in the length of stay³. The finding in this study indicates a suboptimal efficiency of bed usage and hospital facilities on our gynaecological ward over the past 5 years.

Complications of early pregnancy accounting for 28.4% of gynaecological admissions were the single leading indication for gynaecological admissions. This can be explained by the fact that majority of the patients admitted on the gynaecological ward were in the reproductive age group when procreation was highly desirable. Abortion constituted 15.6% of gynaecological admissions in this study and remains the most common complication of early pregnancy and disease entity necessitating admission. The incidence of abortion reported varies depending on the area studied. Abortion constitutes about 25-30% of all gynaecological admissions in most developing countries^{4,5,6}. The low frequency reported in this study (when compared with findings from other studies) was probably due to existence of private specialist clinics where some abortion cases presented for admission. Bearing in mind that induced abortion is illegal in Nigeria, some patients avoid presenting at public health institutions because of shame. This present report confirms that abortion still remains a major health problem in our community. This is possibly due to promiscuity, early marriage and low contraceptive usage in our community. The need for an effective program on post-abortion care cannot be over-emphasized.

Infertility constituted 12.2% of the gynaecological admissions in the period of study. This reflected the fact that about 40-50% of women attending the gynaecological clinic in Nigeria gave complaints of primary and secondary infertility^{7,8,9}, requiring admission for further evaluation and treatment.

Uterine fibroid was the third major indication for admission, constituting 8.5% of admissions. Uterine fibroid, also referred to as leiomyoma was the commonest benign neoplasm, constituting 58.6% of benign neoplasms and 33.7% of all cases of neoplasms that required admission. Uterine fibroid is the commonest tumour of the female genital tract^{10,11}. It is not surprising that uterine fibroid was next to infertility in terms of frequency. It has been observed that uterine fibroid occurs more commonly among infertile women¹². The cause-effect relationship of the two conditions remains unsettled. Vesicovaginal and rectovaginal fistulae, which are largely caused by obstetric trauma due to neglected labour deserve comment. The frequency of 38 cases over a five-year period of this study is much lower than 31 cases

recorded in another tertiary hospital in the North Western Nigeria over a year¹³. The reason for this is not far-fetched. The patients in the latter study usually got married early at a mean age of 13 years, before they grew into matured size¹³. This contrasts sharply to what is obtainable in the South Western Nigeria where the women marry at a later age.

Twenty five patients died in the study period, giving a mortality of 3.1%. All the patients that died were admitted as emergencies and most of them presented very late in the hospital when their clinical conditions were very critical. Neoplasms accounted for 56.5% of all deaths and the neoplasms were all malignant. Ovarian malignancy constituted as much as 43.5% of all deaths and 77% of deaths due to malignant neoplasms. The reason for this is that most ovarian tumours are of epithelial origin and most of them are not discovered until they have spread widely. The results of treatment are poor. Less than 25% of women with ovarian cancer are alive after 5 years. Whilst the incidence of ovarian cancer is similar to that of the endometrium and of the cervix, more women die from ovarian cancer than from carcinoma of the cervix and body of the uterus combined.¹⁴ The report of this study supports this observation. Leiomyosarcoma of the uterus accounted for 4.4% mortality. It is interesting but not surprising to note that there was only one case of leiomyosarcoma and the mortality was 100% within the five-year period of study. This is not unexpected because leiomyosarcoma is an aggressive but rare tumour of the uterus with an incidence of 0.67 in 100,000 women¹⁵.

Post-abortion sepsis contributed 30.4% to mortality in this study. This is similar to findings by other authors¹⁶. Most of the complicated abortion cases were induced. It has been suggested that induced abortions might be responsible for up to 50% of cases¹⁶. Some of the cases presenting as spontaneous incomplete abortion might have been induced. Because abortion is illegal in Nigeria, the fact that interference has taken place is unlikely to figure in the woman's history. Complications of abortion lead to avoidable maternal deaths and considerable morbidity in survivors. Some steps can be taken which will contribute to a reduction in the morbidity and mortality associated with abortion. First and foremost is education, particularly sex education and information about family planning methods to all male and female secondary school children. The importance of lactation amenorrhoea as a method of family spacing should be emphasized. Male and female sterilization and long term contraceptive methods such as progestogen implants should be made available to those couples who consider their families complete. Advice and supplies of contraceptives should be made available and explained to all women who have had an abortion either in the legal or extra-legal systems. In conclusion, this study identified complications of early pregnancy and neoplasms as the major causes of admissions and deaths. Efforts should be intensified towards improving preventive strategies and dissemination of health education at all levels of health-

Care in our community. The high frequency of abortion, infertility, uterine fibroid, vesicovaginal/rectovaginal fistula and ovarian tumour as the five leading causes of gynaecological admissions suggest the need for better admission policy, provision of appropriate facilities and manpower for the care of such conditions in a tertiary health care institution.

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