

Prevalence and presentation of uterine fibroid in a private hospital in Enugu: A 5-year retrospective study

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Abstract

Background: Fibroids are the commonest benign tumours of the uterus. They occur more commonly in the nulliparous women, and among the blacks. They are frequently found incidentally on ultrasonography but common presenting symptoms are abdominal swelling, heavy menstrual bleeding and sub-fertility. Surgery is the definitive treatment modality with most women having myomectomy to preserve fertility.

Aim: The aim of this study was to determine the prevalence, presentation and treatment outcomes of fibroid cases treated in the centre.

Result: From the study, 42 patients were diagnosed with uterine fibroids over the 5-year period out of a total of 338 gynaecological patients treated in the hospital. This gave a prevalence of 12.42% in the 5-year period. Majority of them, 20(47.6%) were aged 31-40 years, 13(31%) were between 21 and 30 years whereas only 9(21.4%) were aged 41 years and above. Almost all the patients 38(90.5%) were from the Igbo ethnic group; 21(50%) had secondary education while 19(45.2%) had tertiary education. Twenty of them (47.6%) were either civil servants or professionals, 19(42.5%) were traders and 3(7.1%) were unemployed. It also revealed that 22(52.4%) were nulliparous, 11(16.7%) were multiparous and only 2(4.8%) were grand multiparous. More than a quarter of the patients 17(40.5%) presented with abdominal swelling, 14(33.3%) with heavy menses, 8(19%) with infertility and the least 3(7.2%) with recurrent miscarriages. Almost all of them 38(90.5%) had myomectomy and only 4(9.5%) had hysterectomy. Only the age and occupation of the patients had a statistically significant influence on the prevalence of uterine fibroid among the women studied.

Conclusion: Most of the women who had uterine fibroids were within the age bracket of 31-40 years with heavy menstrual bleeding as the major presenting symptom. Almost all of them had myomectomy as the definitive treatment.

Keywords: Prevalence; Presentation; Uterine fibroid; Enugu; Retrospective study

1. Introduction

Symptomatic uterine fibroids associated with menorrhagia and extensive abdominal distension are becoming a common occurrence in our environment leading to increased need for interventions. Uterine fibroids, otherwise known as leiomyomas, are the commonest benign gynaecological tumours of reproductive age globally [1,2]. It is a very common presentation in most gynaecological clinics especially among the blacks. Most often uterine fibroids are asymptomatic. About 80% of black Americans and 70% of white women are found to have uterine fibroids at ultrasound by age 50 [3,4], and about 20 to 50% have related symptoms [5]. The actual prevalence of uterine fibroid is not known owing to its asymptomatic nature; and depends on the study design, method of diagnosis, age and ethnic distribution.

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[6-9] but the recorded prevalence among African women appears to be above the recorded global values [3,10,11]. In a hospital-based retrospective study in Enugu, the prevalence of symptomatic uterine fibroid was found to be 6.2% and the majority of them were nulliparous and presented with menorrhagia [12]. In another study done in Skye Hospital, Akure, southwest, Nigeria, by Ukwenya et al, using transabdominal ultrasound, the prevalence was found to be 6.83% was found [13], and in a 5-year retrospective study at Irrua Specialist Hospital, Edo State, the prevalence of uterine fibroid was 19.75% [14]. These masses are often found incidentally during ultrasound or following caesarean sections, hysterectomy or myomectomy appearing as a solitary mass or in multiples. Symptoms may develop in 15% to 30% of the cases and will depend on the locations number and size of the fibroids. These symptoms may include heavy menstrual bleeding, abdominal distension, sub-fertility, adverse pregnancy outcomes or pressure symptoms [15-17].

Management options range from medical treatments for symptoms to surgical which is more or less definitive. The commonest modality of care in our environment is open myomectomy with its attendant complications [18].

This study reviewed the presentation and management of uterine fibroid in a private hospital

Aim and Objectives

The aim of this study was to determine the prevalence, presentation and treatment outcomes of fibroid cases treated in the centre

The specific objectives included to determine:

- Prevalence
- Major presenting symptoms
- Definitive modalities of treatment employed during the study period.

2. Methodology

This was a retrospective study of all the patients who presented with uterine fibroids and were treated in the centre. Relevant data were collected from the clinic admissions and theatre registers of the hospital.

2.1. Study Area

The hospital, Mercy of God Hospital, Enugu is a specialist hospital in Enugu the capital of Enugu State, South-East, Nigeria. It offers specialist care in obstetric and gynaecological care. It boasts of 3 consultant gynaecologists who run weekly clinics and theatre sessions. A certified laboratory scientist mans the laboratory department which offers a wide range of haematological, microbiological and biochemical tests. It also serves as a referral centre for other surrounding private hospitals and primary healthcare centres.

2.2. Data analysis

Data were analyzed using the Statistical Products and Service Solutions (SPSS) version 25.0 and the results represented in tables and percentages where applicable.

3. Result

From the result below, 42 patients were diagnosed with uterine fibroids over the 5-year period out of a total of 338 gynaecological patients treated in the hospital. this gave a prevalence of 12.42% of the 5-year period. Majority of them, 20(47.6%) were aged 31-40 years, 13(31%) were between 21 and 30 years whereas only 9(21.4%) were aged 41 years and above. Almost all the patients 38(90.5%) were from the Igbo ethnic group; 21(50%) had secondary education while 19(45.2%) had tertiary education. Twenty of there (47.6%) were either civil servants or professionals, 19(42.5%) were traders and 3(7.1%) were unemployed.

Table 1 Socio-demographics of respondents

Variable	Frequency	Percentage
Age group		
21-30 years	13	31
31-40 years	20	47.6
41-50 years	9	21.4
Ethnicity		
Igbo	38	90.5
Yoruba	2	4.8
Hausa	2	4.8
Education		
Primary	2	4.8
Secondary	21	50
Tertiary	19	45.2
Occupation		
Civil servant/Professional	20	47.6
Businesswomen/Trader	19	45.2
Unemployed	3	7.1

Table 2 Patients' distribution according to clinical details

Variable	Frequency	Percentage
Parity		
Nullipara	22	52.4
Primipara	7	16.7
Multipara	11	26.2
Grand multipara	2	4.8
Presenting symptoms		
Abdominal swelling	17	40.5
Heavy menses	14	33.3
Infertility	8	19
Miscarriages	3	7.2
Duration of symptoms		
1-2 years	10	23.8
3-4 years	21	50
≥5 years	11	26.2
Previous Medications		
Haematinics	2	4.8
Hormones	5	11.9

Procoagulant	1	2.3
None	34	81
Types of surgery		
Hysterectomy	4	9.5
Myomectomy	38	90.5

Table 2 shows the distribution of the patients according to clinical presentations. From the result, 22(52.4%) were nulliparous, 11(16.7%) were multiparous and only 2(4.8%) were grand multiparous. More than a quarter of the patients 17(40.5%) presented with abdominal swelling, 14(33.3%) with heavy menses, 8(19%) with infertility and the least 3(7.2%) with recurrent miscarriages. Almost all of them 38(90.5%) had myomectomy and only 4(9.5%) had hysterectomy.

Table 3 shows the level of statistical significance considering the intra-operative events and packed cell volume based on the number of fibroids present. Of all the variables considered, only the weight of fibroids was statistically significant with a p-value of 0.02.

Table 3 Statistical significance according to intra-operative events and packed cell volume at presentation compared to the number of fibroids

Variable	Number of Fibroids		P value
	2-4	≥5	
PCV at presentation	28.78+9.80	25.21+9.76	0.24
Weight of Fibroid	7.74+2.09	13.26+10.37	0.02*
Unit transfused	2.65+1.36	2.42+1.01	0.55

Table 4 Statistical significance according to clinical presentations

Variables	Number of fibroids			X ² (p value)
	2-4	≥5	Total	
Nullipara	17(73.9)	5(26.3)	22(52.4)	10.36(0.02)*
Primipara	2(8.7)	5(26.3)	7(16.7)	
Multipara	4(17.4)	7(36.8)	11(26.2)	
Grand-multipara	0(0)	2(10.5)	2(4.8)	
Presenting symptoms				
Abdominal swelling	8(34.8)	9(47.4)	17(40.5)	8.37(0.039)*
Heavy Menses	6(26.1)	8(42.1)	14(33.3)	
Infertility	8(34.8)	0(0)	8(19)	
Miscarriages	1(4.3)	2(10.5)	3(7.2)	
Previous medication				
Haematinics	1(4.3)	1(5.3)	2(4.8)	8.64(0.035)*
Hormones	0(0)	5(26.3)	5(11.9)	
Procoagulant	0(0)	1(5.3)	1(2.4)	
None	22(95.7)	12(63.2)	34(81)	

The table below showed that majority of the women were nulliparous, abdominal swelling and heavy menses were the commonest presenting symptoms.

Table 5 Clinical significance based on patients' biodata

Variable	Number fibroids			X ² (p value)
	2-4	≥5	Total	
Age group				
21-30	10(43.5)	3(15.8)	13(31)	6.42(0.04)*
31-40	11(47.8)	9(47.4)	20(47.6)	
41-50	2(8.7)	7(36.8)	9(21.4)	
Ethnicity				
Igbo	19(82.6)	19(100)	38(90.5)	3.65(0.16)
Yoruba	2(8.7)	0(0)	2(4.8)	
Hausa	2(8.7)	0(0)	2(4.8)	
Education				
Primary	2(8.7)	0(0)	2(4.8)	1.73(0.42)
Secondary	11(47.8)	10(52.6)	21(50)	
Tertiary	10(43.5)	9(47.4)	19(45.2)	
Occupation				
Civil servant/Professional	9(39.1)	11(57.9)	20(47.6)	7.15(0.028)*
Petty trader/Trader	14(60.9)	5(26.3)	19(45.2)	
Unemployed	0(0)	3(15.8)	3(7.1)	
Marital status				
Single	9(39.1)	5(26.3)	14(33.3)	2.94(0.23)
Married	14(60.9)	12(63.2)	26(61.9)	
Widow/Divorced	0(0)	2(10.5)	2(4.8)	

The table below showed that age and occupation of the patients have a significant influence on the prevalence of uterine fibroid among the women studied

4. Discussion

The aim of this study was to determine the prevalence, presentation and treatment outcomes of fibroid cases treated in the centre. From our study, the prevalence of uterine fibroids was found to be 12.42%. this value appeared to be twice the value found by Odugu et al [12] in a similar study. This variation could be due the fact that the quoted study was done in a public tertiary institution whereas the current study was in a privately owned centre. Many women who had fibroids might choose to have them removed in a private centre where the bottlenecks of public institutions do not exist. Secondly, the quoted study was in a centre where many other cases present whereas in our studies only limited gynaecological cases present since it is a small centre. It also differs from the finding by Ukwanya et al [13], in another private hospital in Akure, south-west, Nigeria where a prevalence of 6.83% was found. The dissimilarity could due to the fact that the quoted study was done among different population with their peculiar health seeking behaviour and attitude to health generally. The study was done in the south-western part of Nigeria as against our study which was done in the south-eastern part of Nigeria with different ethnic nationalities and religious beliefs/inclinations which may influence their health-seeking behaviour. Similarly, the result differed from the finding by Elugwaraonu et al [14], in Edo State, south-south, Nigeria where a prevalence of 19.75% was found. However, in this case, the value of 19.75%

was higher than our own value. The difference could be due to the fact that the quoted study was done in a public tertiary institution in a different geopolitical zone with different population demographics.

From our study, 17(40.5%) of the women presented with abdominal swelling, this was closely followed by heavy menstrual bleeding, 14(33.33%). This is similar to the findings of Odugu et al [12], where 55% of the women presented with heavy menstrual bleeding and 54.5% had abdominal swelling and many having a combination of the symptoms.

Majority of our women 38(90.5%) had open myomectomy and only a meagre 4(9.5%) had hysterectomy as definitive treatment. This was similar to the findings of Ezeama CO et al [18] in Nnewi, south-east, Nigeria, where 90.3% of the women had myomectomy. This similarity buttresses the fact that other modalities of treatment such as laparoscopy are not yet readily available in our environment.

5. Conclusion

Most of the women who had uterine fibroids were within the age bracket of 31-40 years with heavy menstrual bleeding as the major presenting symptom. Almost all of them had myomectomy as the definitive treatment.

Recommendation

We recommend more investment in other modalities of treatment such as laparoscopic myomectomy as a mode of treatment as it has obvious advantages over the open myomectomy

Compliance with ethical standards

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Disclosure of conflict of interest

The authors declare that they do not have any competing interest.

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