Post Operation Complications In Uterine Fibroid On Women Operated In Federal Medical Centre Owerri, Imo State.

Nwakanma, O. Emeonye O. P.Obasi O. Ozims S.J. Obike E

Department Of Public Health Faculty Of Health Sciences Imo State University Owerri Department Of Nursing Science Abia State University Uturu Nigeria Michael Opara University Of Agriculture Umudike Nigeria Imo State University Owerri Nigeria Abia State University Clinic Uturu

Abstract

Uterine fibroid poses a lot of threat to women even in pregnancy presenting with lower abdomen pain and excessive menstruation, bearing down sensation in the pelvis, infertility, vomiting, fever, and leucocytosis. Before the treatment of uterine fibroid commences, a diagnosis must be made. The objective of the study is to ascertain various management and post operation complications in uterine fibroid on women in Federal Medical Centre Owerri, Imo State. A total of 60 participants were included and recruited in the study particularly with women who had their operation done in the hospital. The files of the women were monitored from time of admission till discharge. The study showed that surgery is the most common method of treatment of uterine fibroid. Out of the total respondents, 69% of the patients had myomectomy, 30% of the patient had total abdominal hysterectomy with or without salpingo-oophorectomy while 1% had vaginal hysterectomy. None of the patients opted for the use of drugs, this could be due to the fact that surgical treatment is the most effective method for the management of uterine fibroid. Since the p- value = 1.000 is greater than the 0.05 level of significance, we accept H_1 , and concluded that, the treatment option for uterine fibroid is not significant. The paper concludes that the most common treatment method for uterine fibroid is myomectomy and the preference for myomectomy is largely due to the strong reproductive desire of women and the need to keep their fertility after surgery.

Keywords: Fibroid; medications, pelvicpain, oestrogen, hysterectomy, urinary tract infection.

Date of Submission: 28-12-2024 Date of Acceptance: 08-01-2025

.

I. Introduction

Treatment of fibroid depends on symptoms and severity of the symptoms, in most cases, treatment may not be necessary particularly if the woman has no symptoms, has small tumor or has gone through menopause (Omole-Ohonsi, 2022). Medical treatment includes; Non Steroidal anti inflammatory drugs, oral contraceptives (birth control pills), gonadotropin releasing hormone agonist etc. The oral contraceptive pills are commonly use in women with fibroid, often decrease perceived menstrual blood flow and help with pelvic pain. No steroidal anti inflammatory agents such as ibuprofen have been shown to relieve pelvic pain associated with fibroids. Gonadotropin releasing hormone (GnRH) agonist is medications that act on the pituitary gland to decrease oestrogen produced by the body (Omole-Ohonsi, 2022). The decrease in oestrogen causes fibroid to decrease in size. This type of medication often is used prior to surgery to shrink the fibroid, to decrease the amount of blood loss during surgery or to improve pre operative blood count (Strissel, Nowak, & Kurachi, 2018). The anti hormonal drug Ru-486 (Mifepristone) has also been shown to reduce fibroid size by about half. This drug has also been shown to reduce pelvic pain, bladder pressure and lower back pain associated with fibroid. Myomectomy is the surgical removal of benign tumor of muscle tissues in the uterus, it is an operation of choice for all women under the ages of 40 years who required surgery but wish to reserve their reproductive functions. The size and number of the myomata do not prevent myomectomy. Hysterectomy is a surgical removal of the uterus, in young women still bearing children, this may not be advisable because myoma may not contraindicate pregnancy and usually may not cause difficulty. Diagnosing this condition must be made through history taking of past and present illness, physical examination which includes: palpation, percussion, and auscultation (Agboyeji and Ijaiya, 2020). Auscultation will reveal no fetal heart beat or fetal movement. A definitive diagnosis is made through an abdominal pelvic ultrasound scan. Hysterectomy is the most commonly performed surgical procedure in the treatment of fibroid for post menopausal women and is considered a cure

DOI: 10.9790/1959-1401013843 www.iosrjournals.org 38 | Page

depending on the size of the fibroid, hysterectomy can be performed with incisions through the vagina or abdomen (Baird, Dunson, Hill, Cousin, & Schectman, 2019). Uterine Artery Embolization is an innovative approach that involves the insertion of a catheter (small tube) into an artery of the leg (femoral artery) using special x-ray video to trace the arterial blood supply to the uterus, then clotting the artery with tiny plastic or gelatin sponge particles like the size of a grain of sand. This material blocks blood flow to the fibroid and shrinks it (Akinyemi, 2016). Post operative complications of Uterine fibroid includes prolonged post operative pain, pyrexia, anaemia, wound breakdown, urinary tract infection, pelvic abscess, intestinal obstruction, bladder injury, amenorrhea, oligomenorrhea and asherman's syndrome (Choe and Lee, 2021).

A woman who has given birth to a large family is far less likely to develop myomata than a woman who has never been pregnant or have had only one child. Increased risk for myomas is associated with early menarche and older age of the first term of pregnancy (Cramer and Patel, 2023). The cause of this is thought to be increased exposure to menstrual cycles during a nulliparous woman's lifetime, uninterrupted by pregnancy and lactation. A first pregnancy late in life might also have little effect because some tumors could have grown too large to be eliminated by remodeling. Thus, the greatest protective effect of parity occurs for pregnancies during the mid- reproductive years. The protective effect of second and subsequent pregnancies would depend upon the time intervals between previous pregnancies. If the intervals were very short, they would provide little additional protection. Long intervals might also have little protective effect because the fibroids that develop after a previous pregnancy might have had time to grow beyond a size susceptible to remodeling. A pregnancy that occurs while fibroids are small would be protective, whereas pregnancies occurring before fibroid development or after the tumors reach some critical size would not be protective.

The timing of fibroid development is not known, but clinical data indicate that fibroids are rare in early reproductive years.

Effect Of Uterine Fibroid On Women Of Child Bearing Age

Pain and Discomfort: In some cases, there is severe aching pain in the lower abdomen and over the sacrum. The pain could be as a result of vascular congestion and is more severe if there is associated pelvic inflammatory disease (Omole-Ohonsi, 2022). It is often worse before or during menstrual period but may be continuous or occur intermittently at any time during cycle. Some patients with fibroid complain of dyspareunia (Painful or difficult coitus) which may be due to shortening or distortion of the vagina by fibroids low in pelvic, or to adherent prolapsed tubes and ovaries in the pouch of Douglas or due to tender utero-sacral ligaments associated with chronic cervicities (Stewart, 2021).

Uterine Bleeding: Many patients with uterine fibroid complain of excessive menstruation and the passage of clots. The period may be prolonged, profuse or both. If bleeding is severe, chronic anaemia which must be treated before surgery is done. The cause of the uterine bleeding may probably be as a result of functional disturbance in the large oedematous ovaries which is often associated with fibroid (Flake, Anderson, & Dixon, 2018).

Pressure in the pelvis: Symptoms of pressure are not very common even when adherent fibroids are impacted in the pelvis. There is sometimes a sense of weight in the lower abdomen or a bearing down sensation in the pelvis (Heinemann and Moher, 2022).

Constipation: Complaints of Constipation are usually coincidental, urinary symptoms may occur less often than might be expected with the large fibroid seen in the tropics. Frequently, this may be due to reduction in the bladder capacity by fibroid.

Abortion: This is caused my submucous fibroid because the endometrium is thinned out over the tumor and if the ovum is implanted in this situation, it may not obtain the exquisite nutrition because of faulty blood supply to the chorio decidual space.

Infertility: According to Ekinne et al. (2020) infertility may be caused by submucous fibroid distorting the cavity of the uterus. According to Heinemanand Mohnes (2022), fibroid undergoes degeneration during pregnancy causing severe abdominal pain and tenderness over the tumor as well as vomiting, fever, and leucocytosis. Fibroid can also lead to mal-presentation of the fetus, exaggerated pressure on the pelvic, torsion of a sub serous fibroid and premature rupture of the membrane followed by prolapsed cord or premature labor.

Health Belief Model And Application In The Management Of Uterine Fibroid

According to Komolafe (2020), the Health Belief Model was developed in the early 1950's by social scientists Kegels and Rosenstock at the US public Health service in order to understand the failure of people to

adopt disease prevention strategies or screening tests for the early detection of disease. The health belief model suggests that a person's belief in a personal threat of an illness or disease together with the recommended health behavior or actions will predict the likelihood the person will adopt the behavior. Uterine fibroid is the most common benign tumor of the uterus placing women at a high susceptibility. Uterine fibroid if not diagnosed early and treated promptly may pose serious threat such as infertility and spontaneous abortion to the woman. Most times when a woman having uterine fibroid is asymptomatic, she may not perceive the fibroid as a threat until complications arises. The benefit of early diagnosis of uterine fibroid and prompt management with medication or surgery will help reduce the threat uterine fibroid poses to the woman. The woman will only accept the recommended health actions such as myomectomy or hysterectomy if it was perceived as beneficial. Barriers such as financial constraints, fear of surgery, fear of losing the uterus through hysterectomy and limited knowledge of the risk uterine fibroid poses can reduce the pace at which treatment goes. Actions should be taken to intensify the awareness of uterine fibroid amongst women of child bearing age, the need for early diagnosis, prompt intervention and adequate provision of health information concerning uterine fibroid (Horace and Joseph, 2024). With proper information and actions taken to ensure that women are aware of the risk, diagnosis and treatment options for uterine fibroid, the woman will have confidence in choosing which treatment option is best for her.

II. Materials And Methods

This was a retrospective study that included all the women that were diagnosed of fibroid and was treated through medical and or surgical methods. Who also were nursed in the same hospital and discharge through the medical protocol at Federal Medical Centre Owerri, Imo State. South Eastern Nigeria. The respondents were women of child bearing age and above.

Study Area

The hospital is located at Owerri Municipal Area of Imo State. It is located along Orlu road Owerri, Imo State Nigeria in the South East. It is a federal owned hospital managed by the medical professionals from across Nigeria for the past 40 years. They have different wards, units and Operation Theaters and perform different medical and surgical treatment.

Study Population

A total number of 80 respondents were recruited in this study using the documented history and out of this, respondents' treatment ranges from myomectomy, total abdominal hysterectomy, bilateral salpingo-oophorectomy, right and left salpingo-oophorectomy, vaginal hysterectomy and medical medication in Federal Medical Centre Owerri, Imo State within 36 months.

Inclusion Criteria

All the women diagnosed and treated in the same hospital within 36 months and during the study time. Who were counseled by the Nurses and Doctors for several weeks on the treatment options and allowed to make their choice before consent form was signed.

Exclusion: Any woman who was not diagnosed of the disease and not captured within research study period.

Sample Size

60 patients represented the target population using the Taro Yamani's formula for determining the sample size from the target population. The Taro Yamani's formula is: n=N/1+N (e)2 n= sample size N= Population size (Target population), e= Level of precision or sampling error which is 0.05, 1= Constant n= 70/1+70(0.05)2 n= 70/1.175 n= 60.

Procedure for Data Collection

The researchers informed the management of the hospital officially, stating the reasons for the research and the specific time needed to conduct the study. On the approval of the ethical consent after three months. The proforma for the data collection was sent to the nurses and hospital recorders to retrieve the data for the study in order maintain confidentiality. The collection, collation and analysis of data took five10 months. The proforma comprises of social demographic data, eg, age, educational level, parity and marital status while the other section got the data on admission, operation type, medications and Post operation complications.

Ethical Approval

The researchers collected a permission letter from the Owerri Municipal Council Chairman to maintain the cultural ethics, the primary health care development agency in Owerri, Imo State, Nigeria and finally from

the hospital. Respondents' written consent has been collected and preserved by the author(s).

Method of Data Analysis

SPSS statistical methods were used to analyze the data, tables, and calculations in percentage and hypothetical analysis was adopted.

A total of 60 patients' data was collected and analyzed and presented on the charts and tables below:

III. Results
Table 1. Showed the age of the respondents

Table It Showed the age of the respondence				
Age group (Years)	Frequency	Percentage (%)		
10-19	-	_		
20-29	10	17		
30-39	36	60		
40-49	14	23		
Total	60	100%		

Table 1 showed the distribution of client's age in which age range 30-39 years has the highest frequency of occurrence of uterine fibroid with 60%, Age group 40-49 years recorded 23% while the lowest frequency of occurrence is amongst clients within age group 20-29 years which recorded 17%. There was no occurrence of uterine fibroid amongst age group 10-19 years.

Table 2. Showed the incidence of fibroid among the Parity

		9 4
Parity	Frequency	Percentage (%)
No child	35	58
A child	11	18
2-5children	10	17
6-10children	4	7
Total	60	100%

Table 2 indicated that the incidence of uterine fibroid was higher among women, occurring at a frequency of 35 and a rate of 58%. Out of this, 18% of the women had only one child, 17% had 2-5 children, while 7% had 6-10 children.

Table 3. Types of surgery

Drugs/Surgeries	Frequency	Percentage(%)
Myomectomy	41	69
Total Abdominal Hysterectomyalone (TAH)	4	7
Total Abdominal hysterectomy + bilateral salpingo-oophorectomy (TAH+BS0)	10	17
Total Abdominal hysterectomy + Right Salpingo-oophorectomy (TAH + RSO)	2	3
Total abdominal Hysterectomy + Left Salpingo-oophorectomy	2	3
(TAH+LSO)		
Vaginal hysterectomy	1	1
Drugs	-	-
Total	60	100

Table 3 indicated that majority of the patients had myomectomy (69%). 7% had total abdominal hysterectomy alone, 17% had total abdominal hysterectomy + Bilateral Salpingo-oophorectomy, 3% had total abdominal hysterectomy + Right salpingo-oophorectomy, 3% had total abdominal hysterectomy + Left salpingo-oophorectomy. Only 1% had a vaginal hysterectomy while none of the patients used drugs.

Table 4. Showed complications during surgery

Post-op complications	Frequency	Percentage(%)
Pyrexia	13	21
Anaemia	6	10
Amenorrhea	2	3
Oligomenorhea	4	7
Others	7	12
Death	ı	1
47	28	
100%	60	

Table 4 showed that most of the patients had no post-operative complications (47%). Most common post-op complication was pyrexia which recorded 21%, patient that had anaemia after surgery was 10%, patient with Amenorrhea and Oligomenorrhea were 7% and 12% respectively.

Hypothesis 1:

Ho: uterine fibroid is associated with age

H₁: uterine fibroid is not associated with age

One-Sample Z: Frequency Test of mu=15 vs not=15

The assumed standard deviation = 15.19

Variable N	Mean StDev	SEMean	95% CI	Z	P
Frequency 4	15.00 15.19	7.59	(0.11,29.89)	0.00	1.000

Conclusion: Since the p – value = 1.000 is greater than the 0.05 level of significance, we accept H_1 , and concluded that, uterine fibroid is not associated with age.

Hypothesis 2:

H_o: The treatment option for uterine fibroid is significant.

 H_1 : The treatment option for uterine fibroid is not significant. One-Sample Z: Frequency Test of mu = 10 vs not = 10

The assumed standard deviation =15.53

Variable	N	Mean	StDev	SEMean	95% CI	Z	P
Frequency	6	10.0	15.53	6.34	(-2.43,22.43)	0.00	1.000

Conclusion: Since the p-value = 1.000 is greater than the 0.05 level of significance, we accept H_1 , and conclude that, the treatment option for uterine fibroid is not significant.

IV. Discussion

This study compares favorably with other findings and has not shown any huge difference with respect to incidence, age of occurrence, treatment and complication of uterine fibroid. Peak age of occurrence of uterine fibroid was noted in the research study and is specifically within the age range of 30-39 years with 60%. Occurrence rate of 23% was recorded amongst women within the age of 40-49 years and the least incidence occurred among women within the age group of 20-29 years (17%). This corresponds with the study carried out by (Okogbo, Ezechi, & Ezeobi, 2021). on the prevalence of uterine fibroid in south western Nigeria; a clinical study of the presentation and management outcomes, in which the prevalence of uterine fibroid was 67.1% among women in the age group of 30-39 years and decreased to 32.9% in the age group of 40-49 years. Age below 20 years recorded 0%. In agreement with this research findings, Deeway, Syrop, Nygaard, Davis, (2018) revealed that the high incidence manifested in the age group of 30- 39 years is due to the fact that symptoms manifest higher in this age group prompting the need to seek medical interventions. This also correlates with the view of Ukwenya, Madumezia, Afolayan, & Thomas (2020) on the knowledge of uterine fibroid which revealed that more than half of the cases of uterine fibroid are found between the age of 30-40 years. The study showed that surgery is the most common method of treatment of uterine fibroid. This could be due to the fact that surgical treatment is the most effective method for the management of uterine fibroid as stated by Garba (2019). The higher incidence recorded in myomectomy is seen mostly in women who still want to retain their fertility after the surgery. Findings from this research study also revealed that 47% of the patient that underwent surgery had no post operative complications, this could be due to the expertise of the gynecologist and surgeons as well as adequate care of patients before, during and after the surgeries. Amongst those with minor post operative complications, pyrexia was recorded higher with 21% occurrence, anemia was 10%, amenorrhea accounted for 3%, and oligomenorrhea accounted for 7% while other complications accounted for 12%. No death due to uterine fibroid or post operative complication was recorded within the study period. This corresponds with the research study conducted by Ukwenya, Madumezia, Afolayan, & Thomas (2020), on Analysis of surgically treated cases of uterine fibroid in university of Ilorin teaching hospital Nigeria which revealed that post operative pyrexia and anemia were the commonest post operative complications of myomectomy and hysterectomy. The most common method of treatment of uterine fibroid is surgery and it was recorded that 69% of the patient had myomectomy, 30% had total abdominal hysterectomy with or without salpingooophorectomy while 1% had vagina hysterectomy. This finding is in line with the study conducted by Offiong (2020), on the surgical management of uterine fibroid at Amino Kano Teaching hospital which revealed that 61.9% of women with uterine fibroid had abdominal myomectomy while 38.1% of the patients had hysterectomy. This also corresponds to the view of Sankeran, (2017) that myomectomy is the operation of choice for all women under the age of 40 years who required surgery but wish to reserve their reproductive functions. The most common treatment method for uterine fibroid is myomectomy and the preference for

myomectomy is largely due to the strong reproductive desire of women and the need to keep their fertility after surgery (Moore and Flake, 2024). Hysterectomy is mostly done by women who has attained menopause or close to menopausal age or women with multiple fibroid and the risk for the tumor to be cancerous is suspected (Parker, 2020).

V. Conclusion

Most of the women that accepted the treatment options for uterine fibroid, must have perceived the threats and benefits of carrying out the surgeries for the treatment of Uterine fibroid. It was also noted that early diagnosis of uterine fibroid aids prompt intervention, and the most common treatment method was myomectomy and hysterectomy. And in this study, unlike other studies as reported by some workers, we conclude that uterine fibroid incidences in Federal Medical Centre Owerri are not associated with age.

References

- [1] Strissel, E.A, Nowak, R.A, Kurachi, O.G (2018). New Concepts In The Treatment Of Uterine Leiomyoma. Obstetric Gynaecology. 10(107):78-80.
- [2] Agboyeji, A.P, Ijaiya, M.A (2020). Uterine Fibroids; A Ten Year Clinical Review In Ilorin, Nigeria. Journal Of Medicine (11): 16-17.
- [3] Baird, D.D, Dunson, D.B, Hill, M.C, Cousin, D., Schectman, J.M. (2019). High Cumulative Incidence Of Uterine Leiomyoma Black And White Women. Ultrasound Evidence. American Journal Of Obstetric Gynaecology, 7 (18):100-104.
- [4] Choe, S., Lee, J. (2021). Incidence, Aetiology And Epidemiology Of Uterine Fibroids. Clinical Obstetrics And Gynaecology 22(4): 571-580.
- [5] Cramer, S.F, Patel. A. (2023). The Frequency Of Uterine. Leiomyoma. American Journal Of Clinical Pathology; 94(10):435-438.
- [6] Omole-Ohonsi, A. (2022). Surgical Management Of Uterine Fibroid At Aminu Kano Teaching Hospital. Obstetrics Gynaecology Journals; 20:280-292.
- [7] Stewart, R.K. (2021). Regulation Of Progesterone Of Proliferating Cell By Human Uterine. Leiromyoma. Journal Of Clinical Endocriminology; 83(6):21-29.
- [8] Flake, G.P, Anderson, J., Dixon, D. (2018). Etiology And Pathogenesis Of Uterine Leiomyomas: A Review Of Environmental Health Perspective; 8(111):1037-49.
- [9] Heinemann, K., Moher, S. (2022). Benign Gynaecological Tumors; Estimated Incidence. Results Of The German Cohort Study On Women's Health. European Journal Of Obstetrics Gynaecology: (28):107-118.
- [10] Horace, M.F., Joseph, F. (2024). Progress In Obstetrics And Gynaecology. Churchill Livingstone, London; Elsevier. 277-286.
- [11] Hopkins, B.N. (2019). Role Of Medical Management Of Uterine Leiomyomas. Journal Of Clinical Obstetrics And Gynaecology;34 (8785-90).
- [12] Payson, M. (2022). Epidemiology Of Myomas Obstetrics Gynaecology. Clinical North American; 31(33):1-11.
- [13] Deeway, D.J, Syrop, C.H, Nygaard, I.E, Davis, W.A. (2018). Natural History Of Uterine Polypsand Leiomyomata. Journal Of Obstetric Gynaecology; 21(3):37-39.
- [14] Sato, F.M. (2022). Fertility And Uterine Size Among Asian Women Underlying Hysterectomy For Leiomyomas. International Journal Of Women's Fertility; 23(4):347.
- [15] Okogbo, F.O, Ezechi, O.C, Ezeobi, P.M. (2021). Uterine Leiomyomata In South Western Nigeria: A Clinical Study Of Presentation And Management Outcome. Journal Of African Health Science; 11(27):71-80.
- [16] Terry, K.L. (2018). Reproductive Characteristics And Risk Of Uterine Leiomyomata. Fertility Sterility; 94(2):270-276.
- [17] Ekinne, S.O, Fasuba, O, Nyikam, A. (2020). Uterine Fibromata In Ilesha, Nigeria. Niger Medical Practitioner; 9(18):191-197.
- [18] Komolafe, L.A. (2022). Age-Specific Incidence Rates For Self Reported Uterineleiomyomata In The Black Women's Health Study. Obstetric Gynaecology. 2011;25(10):56-58.
- [19] Kempson, R.L. (2023). Endometrial Stromal And Mixed Mulleran Tumors Of The Uterus. Medical Pathology; 2(13):320-332.
- [20] Lumsden, O. H. (2024). Diagnostic Histopathologyof Tumors. (3rd Ed.). 2017;692-694.
- [21] Ukwenya, V, Madumezia, N, Afolayan, O, Thomas, W. (2020). Prevalence Of Uterine Fibroid In A South-Western Nigerian Population: A Sonographic Study. Journal Of Clinical Anatomy;15(14):24-29.
- [22] Garba, I.A. (2019). Surgical Management Of Uterine Fibroid At Aminu Kano Teaching Hospital. Journal Of Basil Clinical Science; 13 (50):31-34.
- [23] Offiong, O.U. (2020). Uterine Fibroid In A Tertiary Health Centre South East Nigeria. Niger Journal Of Medicine; 17(4):47-51.
- [24] Khan, A.T., Shemar. M, Gupta, J.K. (2021). Uterine Fibroid Current Perspectives. International Journal Of Women's Health; 19(29): 222-231.
- [25] Marinho, J.L. (2023). Leiomyoma And Menstrual Cycle Characteristics In A Population Based Cohort Study. Journal Of Human Reproduction; 19(4):235.
- [26] Ryan, G.L, Syrup, C.H, Van, V.O. (2024). Epidemiologyandnaturalhistoryof Benign Uterine Mass Lesion. Clinical Obstetricgynaecology; 48(3)328-342.
- [27] Wallach, E.E. (2021). An Overview Of Development. Clinical features and management. Journal Of Obstetric Gynaecology; 10(104): 393-401
- [28] Moore, A.B, Flake, G.P. (2024). Association Of Race, Ageandbodymassindexinuterinefibroid. Journal Of Reproductive Medicine; 5 (53):90-96.
- [29] Ogedengbe, O.K. (2018). Uterine Fibroid In Okonofua, Contemporary Obstetrics And Gynaecology For Developing Countries.(1st Ed). Intec Printers Limited, Ibadan.
- [30] Palmer, B.W, Taylor, H.S, Pike, M.C. (2021). Effect Of Submucosal Uterineleiomyomas. Fertility Sterility; 93(6): 202-207.
- [31] Parker, W.H. (2020). Etiology, Symptomatology And Diagnosis Of Uterine Myomas. Fertility Sterility; 7(87):725-736.
- [32] Sankeran, S. (2017). Medical Management Of Fibroid. Journal Of Obstetrics Gynaecology. ;22(65):52-58.