

Review Article

Review of leiomyoma in Calabar Nigeria

Ayodele J Omotoso¹, Patience O Odusolu², Martin A Nnoli¹, Ekpe Lawson³, Godstime Irabor¹

¹Department of Pathology, University of Calabar, Calabar

²Department of Obstetrics and Gynecology, University of Calabar, Calabar

³Department of Chemical Pathology, University of Calabar, Calabar

***Corresponding author**

Ayodele J. Omotoso

Email: ayomemee@yahoo.com

Abstract: Leiomyoma is a benign tumour of smooth muscle origin which may be seen at any region of the smooth muscle. It commonly involves the smooth muscle of the body of uterus of women of reproductive age group. Most of the lesions are asymptomatic while others present with features such as menorrhagia, dysmenorrhea, abdominal swelling and abdominal pain. The study is aimed at reviewing the age distribution of the lesion in our society and comparing the findings with other centres. This is a retrospective study involving the reports from the histology registers of Department of Pathology, University of Calabar Teaching Hospital over a period of 10 years. A total of 246 females were found to have the lesion. 104 females had leiomyoma from the age bracket of 31 – 40 years which gives a prevalence of 42.3%. It could be concluded that there is a gradual increase in the incidence age of the tumour which peaks at the 4th decade of life (31-40 years), an active reproductive where the demand on the women is at its peak and gradually decline as these women enter their menopause.

Keywords: Leiomyoma, Calabar

INTRODUCTION

Leiomyoma is benign tumor of smooth muscle of uterus. It is also commonest pelvic tumor among women especially those of reproductive age group^R. The incidence is about 30% to 70%. The majority of uterus leiomyomas is asymptomatic and may not require any therapy. Myomectomy is performed among those women who desire to maintain their menstrual and reproductive function to remove the tumour.

Leiomyoma is present in about 20% of women over 30 years of age. Risk factors for clinical significant fibroids are nulliparity, obesity, a positive family history and African racial origin (three times higher risk). Abdominal examination might indicate the presence of a firm mass arising from the pelvis. Common presenting symptoms are menstrual disturbance and pressure symptoms, especially urinary frequency. Pain is unusually except in the special circumstance of acute degeneration. Also present with menorrhagia which indicates that the fibroid is of sub mucous origin which distorts the endometrial cavity by increasing the endometrial surface area.

Complication of leiomyoma may include; sub fertility resulting from mechanical distortion or

occlusion of the fallopian tubes, abnormal implantation of fertilized ovum, abnormal lie in pregnancy for those located in the cervix or in Postpartum hemorrhage may occur due to inefficient uterine contraction or red degeneration due excessive growth during pregnancy resulting in acute abdomen.

AIMS AND OBJECTIVES

This study is designed to find out the commonest age bracket that present with leiomyoma in Calabar.

MATERIALS AND METHODS

This is a retrospective descriptive study histologic sample received in the Department of Pathology, University of Calabar Teaching Hospital, and Calabar over a ten year period, 1996-2005.

RESULTS

A total of 246 females were found to have leiomyoma among 1602 gynaecological and 6779 specimen received at the centre during the study period. There is a gradual increase in the incidence age of leiomyoma from the 2nd decade of life. It peaks at the in Calabar in a review of age distribution of leiomyoma 10 years from 1996 to 2005. 4th decade with 104 cases

(42.3%) and slowly decline towards past menopause period with 8 cases (3.3%) at the 6th decade of life.

Both age bracket of 11 – 20 years and 61 – 70 years had the least number of 2 females each

respectively with a prevalence of 0.2%. In 1996, a case of leiomyosarcoma was identified in a 45 year old female.

Table 1: age distribution of leiomyoma in Calabar in 10 years

AGE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	TOTAL
9 – 10											
11 – 20									2(0.8%)		2(0.8%)
21 – 30	14(5.7%)	7(2.8%)	7(2.8%)	5(2.0%)	5(2.0%)	10(4.1%)	11(4.5%)	14(5.7%)	5(2.0%)	4(1.6%)	82(33.3%)
31 – 40	8(3.3%)	7(2.8%)	12(4.9%)	10(4.1%)	12(4.9%)	12(4.9%)	8(3.3%)	11(4.5%)	8(3.3%)	16(6.5%)	104(42.3%)
41 - 50	4(1.6%)	4(1.6%)	3(1.2%)	6(2.4%)	3(1.2%)	6(2.4%)	2(0.8%)	10(4.1%)	5(2.0%)	5(2.0%)	48(19.5%)
51 – 60				1(0.4%)	2(0.8%)		1(0.4%)	3(1.2%)		1(0.4%)	8(3.3%)
61 – 70								1(0.4%)	1(0.4%)		2(0.8%)
TOTAL	26(10.6%)	18(7.3%)	22(8.9%)	22(8.9%)	22(8.9%)	28(11.4%)	22(8.9%)	38(15.9%)	21(8.5%)	26(10.6%)	246(100%)

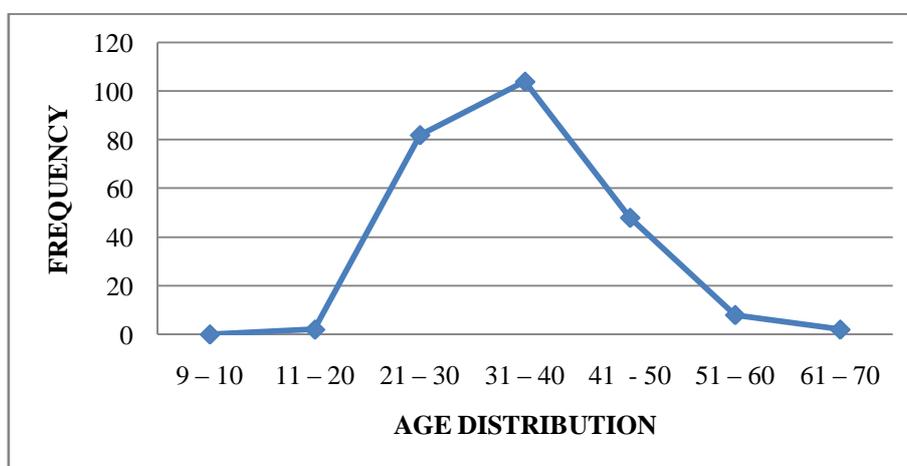


Fig 1: Showing frequency and age distribution of leiomyoma

DISCUSSION

The study revealed a prevalence of 42.3% for fibroids of all gynecological and 3.6% among samples received within the study period. This cannot be generalized to the population due to the asymptomatic nature of most fibroid cases and the fact that some symptomatic patients may not seek medical attention or may seek help from non-orthodox centres.

This prevalence of 3.6% however, is only less than what was seen at Ilesha (8.35%)[1] but a little less than the incidence of 13.4% recorded by Aboyeji and Ijaiya at Ilorin [2].

Peak age of occurrence was noted in this study in 4th decade of life with 42.3% is significant. This is the age when most women are often well concerned about conception, therefore any cause of secondary infertility is often removed which could be leiomyoma. This could explain the reason of having greatest number of myomectomy in this age group. This is in agreement with other reports from other centres [3, 4]. The self reported prevalence in this study ranged from 4.5% in UK to 9.8% in Italy [5-7]. These results suggest that uterine fibroids are quite common in the black race than

the Caucasians. The prevalence of uterine fibroid in this study (42.3%) was similar to the report in Enugu, south-eastern Nigeria [8, 9] and higher than those reported in Caesarian women [10, 11]. The high incidence of uterine leiomyoma among Nigerian women of this age group (31 – 40 years) may be associated with the race, the genetic and the hormonal factors this is supported by several studies which reported higher incidence in black women and women of African descent. Uterine fibroids are reportedly commoner amongst young nulliparous women within the reproductive age of 21-40 years however, many of this age group will not present for myomectomy until after marriage and with primary and secondary infertility. It is generally believed that most uteruses that falls to carry a baby, is bound to harbor Fibroids. This may be due to the prolonged effect of estrogen on the uterine smooth muscles.

CONCLUSION

It has been found that leiomyoma presents commonly in a reproductive age group of 31 – 40 years. This condition is associated with infertility in women so that myomectomy may be treatment of choice for women desiring to be pregnant. There is need for other

studies to examine other co-morbid association of leiomyoma.

CONFLICT OF INTEREST

The authors have no conflict of interest.

APPRECIATION

Mr. Oshatuyi Olukayode O. of Arish Specialist Laboratory (Diagnostic, Research and Forensic) is highly appreciated for the statistical analysis and typing of the manuscripts.

REFERENCES

1. Okogbo F.O, Ezechi O.C, Loto O.M, Ezeobi P.M; Uterine Leiomyomata in South Western Nigeria, 2011; 11:271-278.
2. Aboyegi A.P, Iyayi M.A; Uterine fibroids; A ten year clinical review in Ilorin, Nigeria. Niger Journal of Med, 2002; 11:16-19.
3. Ezeama C, Ikechebelu J, Obiechina N, Ezeama N; Clinical presentation of uterine fibroids in Nnewi, Nigeria: A 5 – year review, 2012; 2:114-118.
4. Wise LA, Palmer JR, Stewart EA, Rosenberg L; Age-specific incidence rates for self-reported uterine leiomyomata in the black women's health study. Obstet Gynecol. 2005;105:563–8
5. Heinemann K, Thiel C, Mohner S, Lewis MA, Raff T, Kuh-Habich D, *et al.*; Benign gynaecological tumours: Estimated incidence. Results of the German Cohort Study on Women's health. Eur J ObstetGynecol Reprod Biol.2003; 107:78–80.
6. Baird DD, Dunson DB, Hill MC, Cousins D, Schectman JM; High cumulative incidence of uterine leiomyoma black and white women: Ultrasound evidence. Am J Obstet Gynecol. 2003; 188:100–7.
7. Payson M, Leppert P, Segar J; Epidemiology of myomas. Obstet Gynecol Clin North Am. 2006; 33:1–11.
8. Ikechebelu JI, Adinma JIB, Ikegwuonu SO, Orie EF; Clinical Correlates of unexplained infertility in south eastern Nigeria. Trop J ObstetGynaecol. 2002; 19:8–11.
9. Adinma JIB; Uterine fibroid and fertility in Enugu. Nigeria medical journal. 1994;5:3–5
10. Flake GP, Andersen J, Dixon D; Etiology and pathogenesis of uterine leiomyomas: A review. Environ Health Perspect. 2003; 111:1037–49.
11. Stewart EA, Nowak RA; New concepts in the treatment of uterine leiomyoma. Obstet Gynecol. 1998;92:624–7