

**THE PREVALENCE OF INCIDENTAL BREAST MALIGNANCY IN
WOMEN BELOW 35 YEARS OLD WITH FIBROADENOMA AT
UNIVERSITY TEACHING HOSPITAL, LUSAKA, ZAMBIA**

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A Dissertation submitted in partial fulfillment of the requirements for the award of the
Master of Medicine (General surgery) of the University of Zambia

The University of Zambia
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DECLARATION

I hereby declare that this dissertation represent my own work. It has not previously been submitted for a degree, diploma or any other qualification at this or any other University.

Signed..... Date.....

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APPROVAL

This dissertation of Dr. Charles Mbewe is approved as fulfilling part of the requirements for the award of the degree of Master of Medicine in General Surgery by the University of Zambia, subject to the examiner's report.

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ABSTRACT

The most common cause of a discrete breast mass is fibroadenoma. Malignancy within a fibroadenoma is very rare with a reported incidence of 0.1 to 0.3%. Despite an audit report from the University Teaching Hospital histology lab done from January to December in 2013 showing that 11% of clinically diagnosed fibroadenoma were found to be malignant on histology, the prevalence of incidental cancer within a fibroadenoma is not known.

This study focuses on the prevalence of incidental malignancy in patients with fibroadenoma. The findings will provide evidence based recommendations on the management of patients less than 35 years old with fibroadenoma at UTH.

The aim of this study was to determine the prevalence of malignancy in fibroadenoma in females less than 35 years old presenting at the University Teaching Hospital during the study period.

This was a cross-sectional study involving women less than 35 years of age old, presenting at University Teaching Hospital with a fibroadenoma. The target population was women with clinically and histologically confirmed fibroadenoma. The inclusion criteria was all women less than 35 years of age who presented with breast lumps that were either clinically or histologically confirmed as fibroadenoma. The breast lumps were excised under local anesthesia and the specimen analyzed for the presence of malignancy after confirming it being a fibroadenoma.

The sample size was 116 using the prevalence formula. The mean age was 22.8 years old and the mean size of fibroadenomas was 3.35 cm. None of the cases presented with breast cancer arising from within the fibroadenoma. The study has demonstrated for the first time in Zambia that the prevalence of the incidental breast malignancy in fibroadenoma was extremely rare in women less than 35 years. Therefore, management of histologically confirmed fibroadenoma in women less than 35 years can be safely managed conservatively.

KEY WORDS: Incidental malignancy, Fibroadenoma, 35 years, Conservative management

DEDICATION

To my beautiful wife Dorica Zimba Mbewe, and my lovely children Takondwa, Chuma and Madalitso, I owe it all to you.

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DEFINITIONS

Breast lump: A mass in the breast

Conservative Management: Non operative treatment

Surgical Management: Operative treatment

ABBREVIATIONS

CDF	Clinically Defined Fibroadenoma
HCF	Histologically Confirmed Fibroadenoma
UTH	University Teaching Hospital
WHO	World Health Organisation

CHAPTER ONE: INTRODUCTION

1.1 Background

The most common cause of a discrete breast lump is fibroadenoma (Harris , et al., 1991). Fibroadenoma is most common in female breast in the first three decades of life (Harris, et al., 1991) Fibroadenomas appear to be commoner in young African-American females (Page , et al., 1987). Exact figures are however, not known. Studies have shown no difference in frequency or age distribution, in white, black, or mixed population in South Africa (Harris, et al., 1991). There is worldwide agreement that fibroadenoma can be diagnosed preoperatively with great certainty and so most of the lesions diagnosed would resolve without having to be excised (Chhanda , 2009). However, there is no consensus on the proportion of the fibroadenomas that would spontaneously resolve and hence the controversy on expectant policy.

The aetiology of fibroadenoma is unknown. Most fibroadenoma grow up to 2 to 3cm and there after begins to regress (Page, et al., 1987). Approximately about 2% may grow larger and become the Giant Fibroadenoma. Though the definition of Giant Fibroadenoma varies, the majority define it as a fibroadenoma larger than 5cm (McGrath , 2000) (Kuusk , 1988). Carcinoma within a breast fibroadenoma is very rare with a reported incidence of 0.1 to 0.3% (Buzanowski, et al., 1975) (Ozzello , et al., 1985). The first people to describe carcinoma arising in a fibroadenoma were Cheatle and Culter.

Despite previous studies of patients with fibroadenoma showing an elevated risk of breast cancer compared with women of similar age group in the general population (Carter, et al., 2001), malignant transformation of fibroadenoma to breast cancer is very rare (Carter , et al., 2001) (Buzanowski, et al., 1975) (Deschenes, et al., 1985) (Diaz , et al., 1991) (Dupont , et al., 1985) (Dupont , et al., 1994) (Ozzello , et al., 1985) As a result, the established management of histologically confirmed fibroadenoma (HCF) is typically conservative, with observation by serial sonography or mammography to detect growth. And

therefore, only a minority of women with such lesions undergoes surgical excision. (Greenberg, et al., 1998) (Carter , et al., 2001) (Kaufman, et al., 2002). At University Teaching Hospital, some cases that were clinically diagnosed as fibroadenoma in some women less than 35 years of age, have been found to be malignant on histology (Histopathology audit, 2013, UTH). The purpose of the study was to evaluate the frequency of incidental malignancy in patients with clinically defined fibroadenomas (CDF) and propose decision criteria for managing patients with fibroadenoma at UTH.

1.2 Statement of a Problem

A **number** of young women presenting with breast lumps and clinically diagnosed as Fibroadenoma have been found to have malignancy at University Teaching Hospital (2013, Histopathology audit, UTH).

From January to December, 2013, a total number of 46 cases of CDF underwent excision biopsy. 5 cases (11%) were found to be malignant (3 of them were less than 35 years of age). The rest were benign breast lesions that included tubular adenoma (3 cases), fibroadenoma (35 cases), benign Phyllodes tumour (1 case), fibrocystic disease and hypocellular fibrosis (1 case each). It was difficult to tell what fraction of the 5 cases of malignancy were cancers within a fibroadenoma owing to it being retrospective data.

The restricted age group of women less than 35 years was considered in the study because the incidence of fibroadenoma is high in the first and the second decades of life. And also because at the age greater than 35 years old, the index of suspicion for breast malignancy is already high by the clinicians.

1.3 Study Justification

The study will highlight the prevalence of incidental malignancies in fibroadenoma, and propose the management of fibroadenoma at UTH.

1.4 Research Question

What is the prevalence of incidental malignancy in patients less than 35 years with fibroadenoma at the University Teaching Hospital, Lusaka, Zambia?

1.5 Alternative Hypothesis

The incidental malignancy in women of less 35years of age with Fibroadenoma at UTH is more than 0.3%.

1.6 Objectives

1.6.1 Main objective;

To determine the prevalence of incidental malignancy in females less than 35 years of age, with fibroadenoma at UTH.

1.6.2 Specific objectives;

- (i) To determine characteristics of female patients, less than 35years old presenting with fibroadenoma at the University Teaching Hospital, Lusaka, Zambia.
- (ii) To determine factors associated with breast malignancy in fibroadenoma in women less than 35 years old at University Teaching Hospital.

1.7 Organisation of The Dissertation

This study is divided in chapters which are included as follows:

Chapter 1 describes the background, statement of the problem, study justification, objectives and specific objectives.

Chapter 2 deals with literature review and explains what fibroadenoma is and the prevalence of cancer within the fibroadenoma from literature.

Chapter 3 provides study conceptual framework, research methodology and ethical considerations.

Chapter 4 states the results of the study with illustrations and tables to interpret the data collected.

Chapter 5 discusses the study findings comparing our findings to local, regional and international literature.

Chapter six summarises the study findings and recommendations.

CHAPTER TWO: LITERATURE REVIEW

Fibroadenoma of the breast is the most common benign breast Tumour in adolescent and young women (Ozzello, et al., 1985). The peak incidence of fibroadenomas falls during the second and third decades of life (Kuijper, et al., 2001) (Greenberg , et al., 1998). Fibroadenomas are stimulated by estrogen and progesterone, pregnancy and lactation, and at menopause they undergo atrophic changes (Kuijper, et al., 2001). Most frequently fibroadenoma present as palpable breast masses measuring up to 3cm. (Kuijper, et al., 2001) (Greenberg, et al., 1998) Incidental malignancies have been reported in fibroadenomas. Because of the potential for more aggressive pathology masquerading as fibroadenomas, management has been debated and recommendations changed several times in recent decades. Until the mid-1980s, standard practice was excision of all fibroadenomas (Wilkinson , et al., 1989) (Wilkinson, et al., 1985). Subsequent studies in the 1980s and 1990s demonstrated the safety of observing the presumed fibroadenomas in women under age 35 who had a fine needle aspirate biopsy that did not contain malignant or suspicious cells, (Carty, et al., 1995). More recently, the question has been asked whether biopsy is even necessary. Smith and Burrows concluded that patients under the age of 25 with benign ultrasound findings could be safely observed without a biopsy (Smith, et al., 2008).

Carcinoma arising from within a fibroadenoma is rare with about 100 cases reported in world literature (Pick, et al., 1984). There is a slight increase in the risk of breast cancer if the fibroadenoma is of complex type and associated proliferative disease adjacent to the fibroadenoma (Kuijper , et al., 2002). The reported mean age in a number of case series is 42.5 years, about 20 years later than the peak age for fibroadenoma (Pick , et al., 1984).

Azzopardi, et al., (1979) proposed that carcinoma involving a fibroadenoma may be due to one of the following:

- Carcinoma arising in an adjacent breast tissue engulfing or infiltrating a fibroadenoma.
- Carcinoma in the crevices of a fibroadenoma as well as in the adjacent breast

Tissue

- Carcinoma restricted entirely, or at least dominantly, to a fibroadenoma as well as in the adjacent breast tissue.

The diagnosis of cancer in pre-existing fibroadenoma is usually a histological surprise (Netto D, et al., 1980) (Azzopardi , et al., 1979) (Smith , 1949). Despite malignant transformation in a fibroadenoma being rare, there is need to have a high index of suspicion in middle aged women with a fibroadenoma and associated risk factors like family history and/or BRCA-1, BRCA-2 mutation (Moskowitz , et al., 1980) (McDivitt , et al., 1965) (Goldman , et al., 1969). Histopathological examination of all fibroadenoma should be performed routinely considering that there are no definite clinical or radiological criteria of diagnosing carcinoma developing in a fibroadenoma (Chintamani, 2009). Studies have shown that Fibroadenomas can contain both in-situ and invasive malignances (Ozzello, et al., 1985) (Pick, et al., 1984). In the 66% of the cases reported of carcinoma occurring in fibroadenoma, the malignance has been an in-situ lesion; in 34% of cases, the cancer is invasive (Pick , et al., 1984). The percentage of patients with an in-situ lesion in a fibroadenoma, whose lesion is lobular carcinoma in-situ, is 65 % (Pick , et al., 1984). About two thirds of the carcinoma arising from within a fibroadenoma has lobular morphology; the rest are ductal, mixed ductal and lobular (Ozzello, et al., 1985)(Pick , et al., 1984).

The biological behavior of carcinoma in a fibroadenoma is not different from that of breast carcinoma not related to fibroadenoma (Ozzello , et al., 1985) (Pick, et al., 1984) (Memon, et al., 2007) (Fondo , et al., 1979). The treatment of in-situ cancer within a fibroadenoma is less well defined compared to treatment of invasive cancer in a fibroadenoma, which is similar to that of the carcinoma of the breast. Out of the total number of patients with lobular carcinoma in-situ in fibroadenoma, thirty-three per cent of patients develop an invasive carcinoma, intraductal or lobular, in the same or contralateral breast (Ozzello, et al., 1985). This is in agreement with the incidence of carcinoma developing in patients with lobular carcinoma in-situ without fibroadenoma,

which is at 17 to 36% (Wheeler, 1974) (Rosen, et al., 1978) (Haagensen, et al., 1981).

The options that have been used to treat lobular carcinoma in-situ are excision followed by surveillance or mastectomy. In a study done by Ozzello et., (Buzanowski-Konakry, et al., 1975) (Ozzello, et al., 1985) found that of the 16 patients treated by excision local excision only, two developed a recurrence, one after three years and the other after five years. In another study by McDitti et al, one of the five patients with lobular carcinoma in-situ developed a recurrence after local excision (McDivtt, et al., 1965).

Pick et al, (1984) found that of 28 patients with lobular carcinoma in-situ in a fibroadenoma, 10 had been treated by local excision, two developed recurrence. The eighteen patients, who had been initially treated with a form of mastectomy, had no recurrence.

Lobular carcinoma in-situ in a fibroadenoma occurs in older patients than do simple fibroadenomas, having a mean age of 42 years and 25 years, respectively (Ajay, et al., 1998).

CHAPTER THREE: METHODOLOGY

3.1 Study Design

Study type - A Cross-Sectional study

Site – Clinic 4, Phase V and Phase III Operation Theatre, at University Teaching Hospital (UTH), Lusaka.

Study duration – The study was conducted over a period of eight months from October 2016 to May 2017.

Inclusion criteria

All patients less than 35 years of age with breast lumps that were clinically defined and those with histologically confirmed fibroadenoma seen at UTH, during the study period.

All patients less than 35 years with fibroadenoma who consented to be included in the study.

Exclusion criteria

Women less than 35 years old with breast lumps that were clinically of histologically confirmed malignant lesions.

3.2 Data collection method: A total of 116 patients were enrolled over the period 8 months from surgical clinic 4 at UTH, into the study. The calculated sample size was 128 using prevalence formula as shown below.

Patients with either clinically or histologically defined fibroadenoma were examined, after obtaining the clinical history. The history of menarche, age of first pregnancy, family history of breast/ovarian cancer and history of hormonal contraceptives was enquired.

Thereafter, Physical examination for a palpable mobile rubbery breast lump, stating the site and approximate the measurements.

The axilla was then checked for the presence of enlarged lymph nodes. Patients were then required to do an ultrasound of the breast.

The patients were then booked for excision biopsy under local anesthesia in the emergency Operation Theatre. The biopsy obtained was sent to UTH

Histopathology laboratory for Histology. Three to five slices were checked for incidental malignancy.

Patients were reviewed with Histology results in the outpatient surgical clinic.

(a) Sample Size

Prevalence formula

$$N = \frac{Z^2 \times P(1-P)}{d^2}$$

d²

N=Sample size

Z=Z statistic (usually 1.96)

P =the expected prevalence (conservative 0.5)

D= acceptable accuracy range (±0.05)

With P=0.1, the sample size will be 128.

3.3 Data management;

Data collection tool: Data was collected using interviewer-administered semi- structured questionnaire and then entered into the data master sheet.

Variables:

1. Depended variables
 - age
 - breast malignancy in fibroadenoma
2. Independent variables
 - size of the fibroadenoma
 - position of the fibroadenoma in the breast
 - associated pain in the fibroadenoma
 - positive family history of cancer of the breast/ ovary
 - type of malignancy

Data processing: Looking at the depended variable, which is the presence of breast malignancy in fibroadenoma, it means that the outcome variable is categorical and therefore most of the statistical tests to be used was to be Chi-square. However, since there were no case of incidental malignancy found, descriptive and inferential statistics were used to analyze the data using the Stata 10 statistical package. Tables and graphs were used to present the results.

3.4 Ethical consideration: Permission and clearance was obtained from the ERES CONVERGE, P/BAG 125, LUSAKA ON the 07th October, 2016 and from firms at the department of surgery at the commencement of the study. Specific considerations in keeping with medical ethics were observed including the following;

- Participants had to sign the consent form provided.
- Identity of participants was concealed.
- All information obtained was to be kept confidential.

Possible risks to participants include the following;

1. Bleeding was mitigated by pressure and suturing
2. Pain had to be controlled by use of local anaesthetics and analgesia.
3. Wound infection was be prevented by ensuring aseptic techniques during the procedure and by use of prophylactic antibiotics.

CHAPTER FOUR: RESULTS

4.1 Patient Demographics and Characteristics

This study involved 116 patients with fibroadenoma. The number of fibroadenomas from the left breast was 52 (45%) and from the right were 64 (55%). The age range was 10 to 35 years with a mean of 22.8 years. This is similar to what is obtained in literature that the majority of cases of fibroadenoma affects females in the second and third decades of life.

The size of fibroadenomas was mostly between 2 cm to 3cm (26%) with a mean of 3.35 cm. The number of fibroadenomas that were above 5cm in diameter were 23 (20%).

Most patients had menarche between 10 to 15 years with the mean age at 14.0 years. The age at first pregnancy was mostly between 16 to 20 years old with the mean age at 19.7 years old.

There were only 5 patients (4%) who presented with a family history of cancer. A family history of cervical cancer was the highest with 3 cases representing 60% of those with a positive history.

Only 41 patients (35%) presented with a history of use of contraception. Oral contraception was the most used method with 23 cases representing 56%.

Out of the 116 patients, only 5 cases presented with breast pain representing 4% of the cases.

There was no case that presented with breast cancer arising from within a fibroadenoma.

Participant's demographics and baseline fibroadenoma characteristics were summarized in the Table 1 below.

Table 1: Demographic and Baseline Characteristics of the Participants

Variable	Category	Frequency (N=116)	Frequency (%)	Frequency of BCaF (N=116)
Age of Patient	10-15	5	4	0
	16-20	45	39	0
	21-25	37	32	0
	26-30	17	17	0
	31-35	12	12	0
	Total		116	100
Breast side	Left Breast	52	45	0
	Right Breast	64	55	0
	Total	116	100	0
Size of Fibroadenoma	0.1 - 1.0 cm	7	6	0
	1.1 – 2.0 cm	23	20	0
	2.1 – 3.0 cm	30	26	0
	3.1 – 4.0 cm	22	19	0
	4.1 – 5.0 cm	11	9	0
	>5cm	23	20	0
	Total		116	100
Age at Menarche	10-15	84	72	0
	16-20	30	26	0
	>21	2	2	0
	Total	116	100	0
Age at first pregnancy	10-15	6	5	0
	16-20	64	55	0
	21-25	35	30	0
	26-30	8	7	0
	31-35	3	3	0
	Total	116	100	0
Family history of cancer	History of cancer present	5	4	0
	No History of cancer	111	96	0
	Total	116	100	0
Distribution of cancer family history	Cervical cancer	3	60	0
	Breast cancer	1	20	0
	Ovarian cancer	1	20	0
	Total	5	100	0
History of contraception	No contraception	75	65	0
	History of contraception	41	35	0
	Total	116	100	0
Distribution of contraception methods	Oral contraception	23	56	0
	Injectable contraception	13	32	0
	Intra-uterine device	3	7	0
	implant	2	5	0
	Total	41	100	0

4.2 AGE

Table 2: Shows that the mean age was 22.8 years. The median age was 21 years and the mode was 19 years.

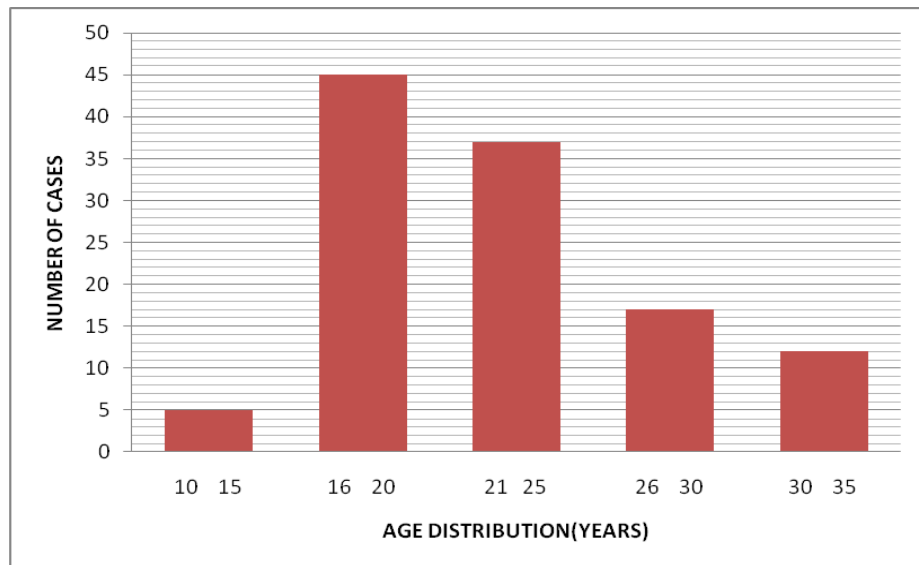
Table 2 (A): Age; Statistics

N	Valid	116
	Missed	0
	Mean (years)	22.8
	Median(years)	21
	Mode (years)	19
	Standard Deviation	5.8

Age Distribution

Table 2 (B) show age distribution. As shown below, most of the cases were in the age range 16 - 20 years old.

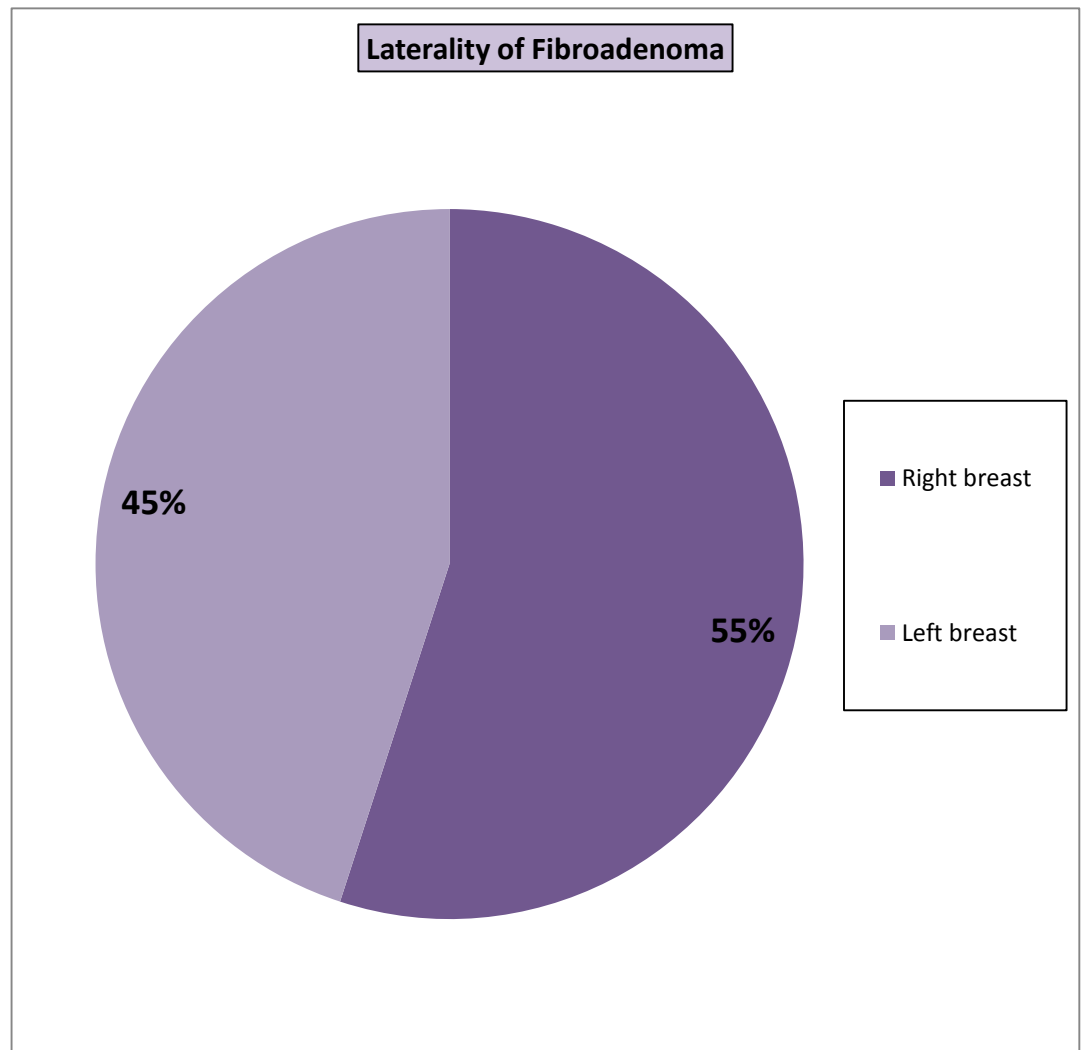
Table 2.(B) Age Distribution



4.3 Laterality of Fibroadenoma

Figure 1 shows the breast side distribution of the fibroadenomas. As shown below, the right breast was more affected than the left breast. Right breast fibroadenoma had 64 cases (55%) compared to 52 cases (45%) of the left breast.

Figure 1: Laterality of fibroadenoma



4.4 Size of Fibroadenoma

Table 3 shows that the mean diameter of the fibroadenomas was 3.35 cm. The median size was 3 cm and the mode was also 3 cm.

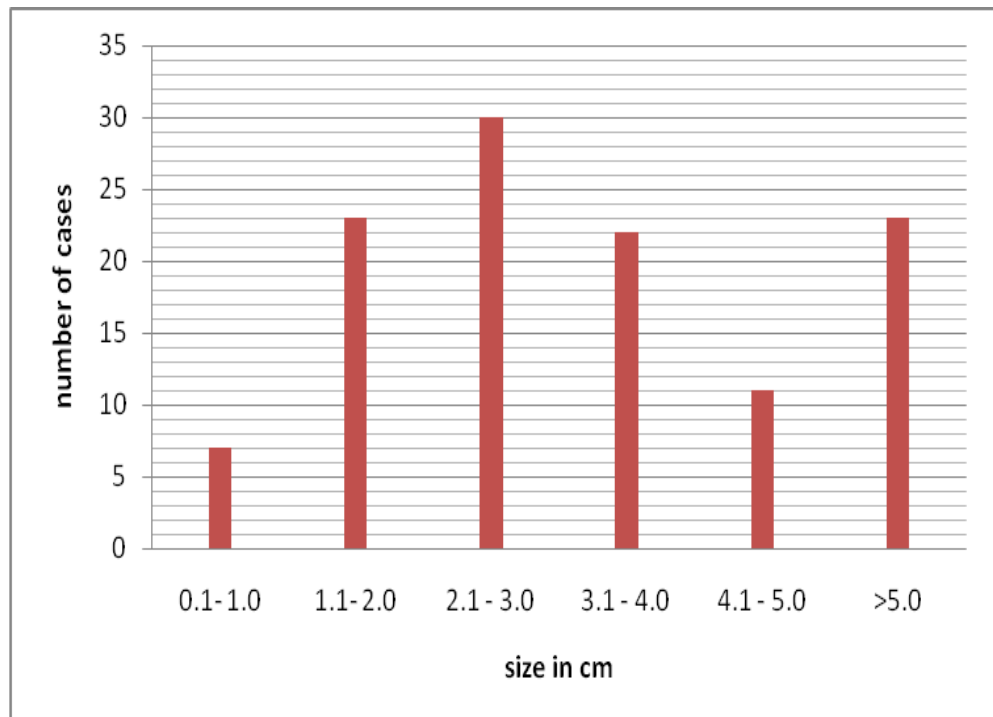
Table 3 (A): Size of Fibroadenoma; Statistics

N	Valid	116
	Missed	0
	Mean (cm)	3.35
	Median(cm)	3
	Mode (cm)	3
	Standard Deviation	1.97

4.5. Fibroadenoma Size Distribution

Table 3 (B) shows fibroadenoma size distribution. As shown below, most of the cases were in the size range of 2.1 to 3.0 cm. The number of cases above 5 cm was 23.

Table 3(B) Fibroadenoma size distribution



4.6. Age at Menarche

Table 4 shows that the mean age at menarche was 14 years. The median age was also 14 years and the mode was 16 years.

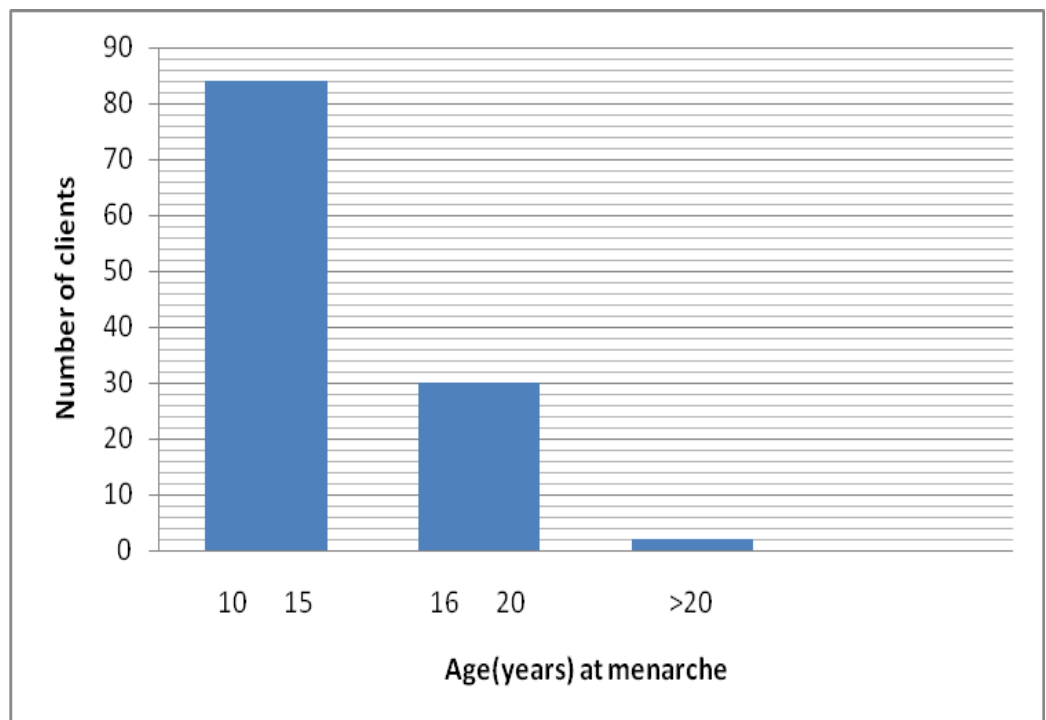
Table 4 (A): Age at menarche; Statistics

N	Valid	116
	Missed	0
	Mean (years)	14
	Median(years)	14
	Mode (years)	16
	Standard Deviation	2.48

4.7. Age At Menarche Distribution

Table 4 (B) show age at menarche distribution. As shown below, most of the cases were in the age range 10- 15 years old.

Table 4 (B) Age Distribution at Menarche



4.8. Age at First Pregnancy

Table 5 (A): Shows that the mean age at first pregnancy was 19.7 years. The median age was also 19.7 years and the mode was 16 years.

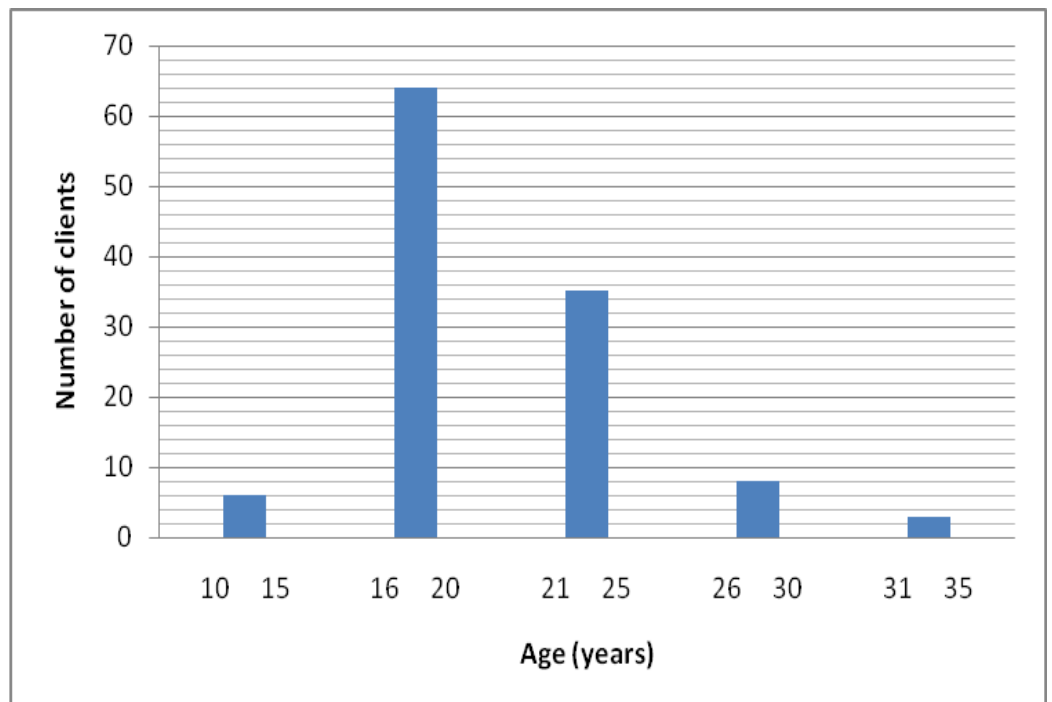
Table 5 (A): Age at first pregnancy; Statistics

N	Valid	116
	Missed	0
	Mean (years)	19.7
	Median(years)	19
	Mode (years)	16
	Standard Deviation	4.92

4.9. Distribution of Age at First Pregnancy

Table 5 (B) show age at first pregnancy distribution. As shown below, most of the cases were in the age range 16- 20 years old.

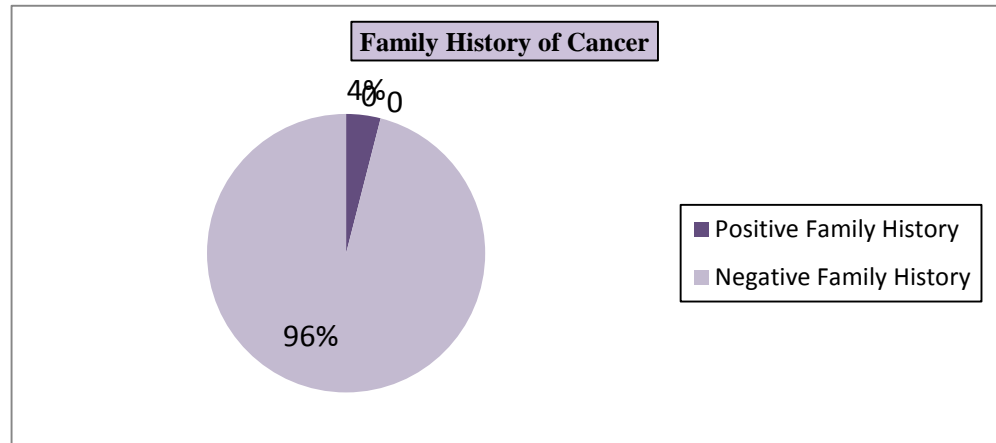
Table 5 (B): Distribution of Age at First Pregnancy



4.10. Family History of Cancer

Figure .2 (A): Shows that only 5 patients (4%) had a positive family history or cancer compared to 111 patients (96%) who did not have.

Figure 2: Family History of Cancer



4.11. Distribution of Family History Cancers

Table 6. shows distribution of family history cancers. As shown below, cervical cancer had the highest frequency represented by 60%.

Table 6 Distribution of family history of cancers

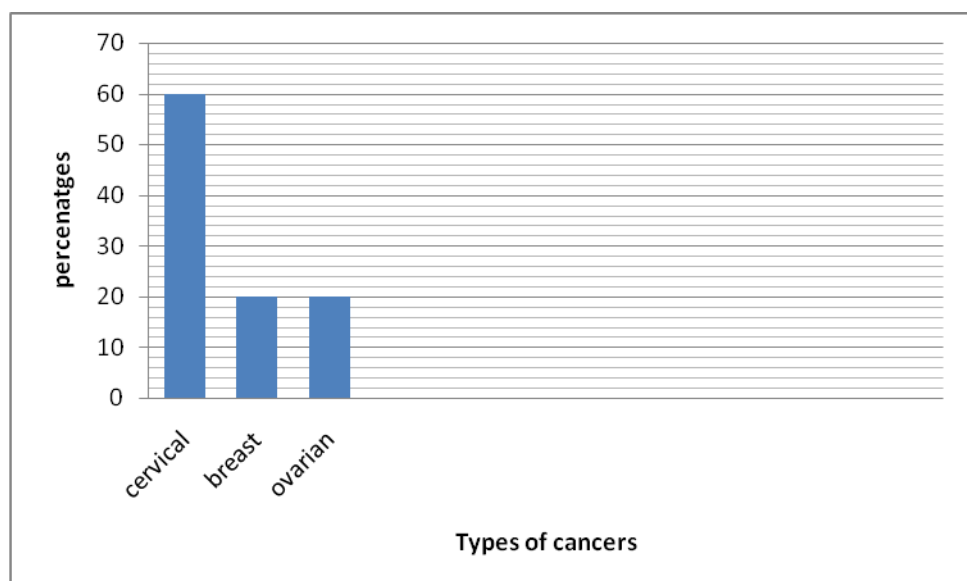


Figure 3: Shows that only 41 patients (35%) had a positive history of contraception use compared to 75 patients (65%) who did not have.

Distribution of Contraception Methods

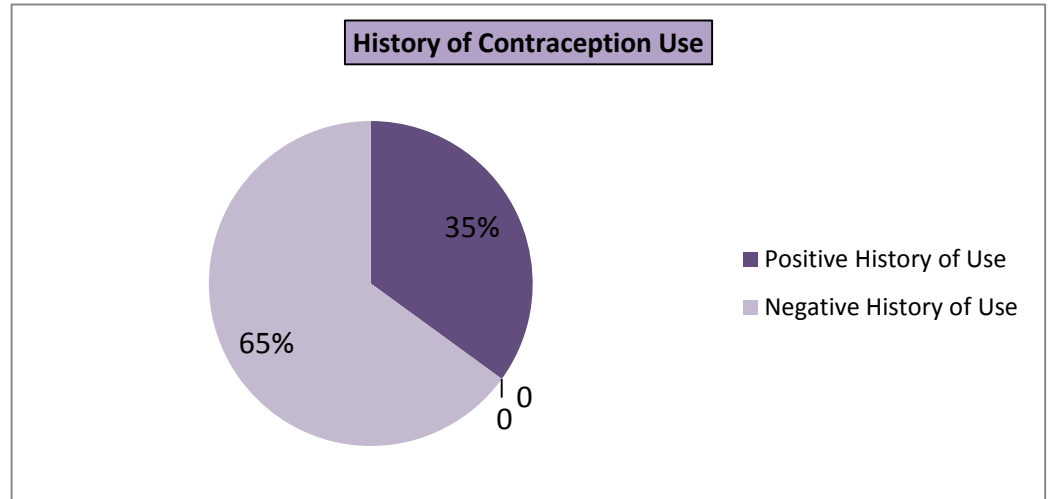
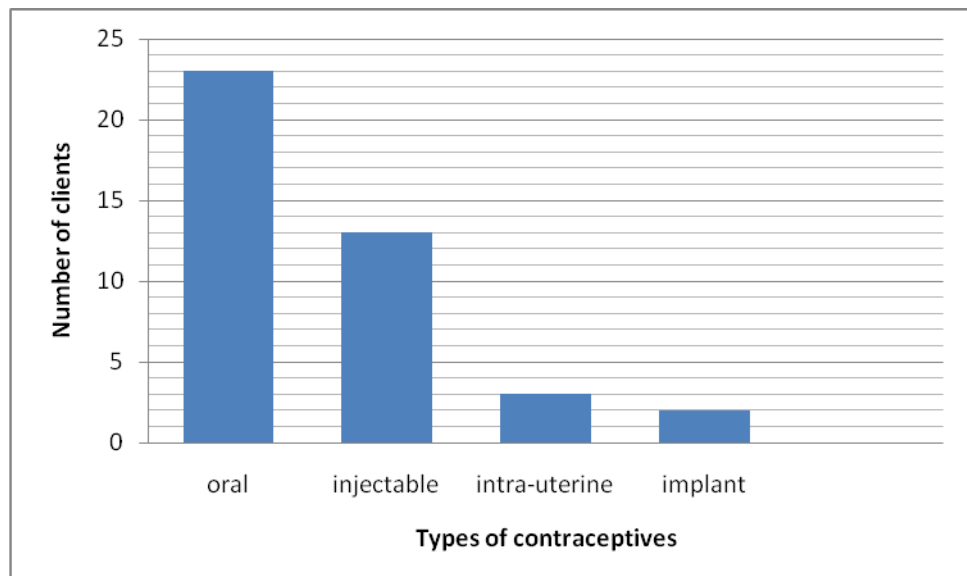


Table 7 shows distribution of contraceptives methods. As shown below, oral contraception had the highest frequency represented by 23 cases.

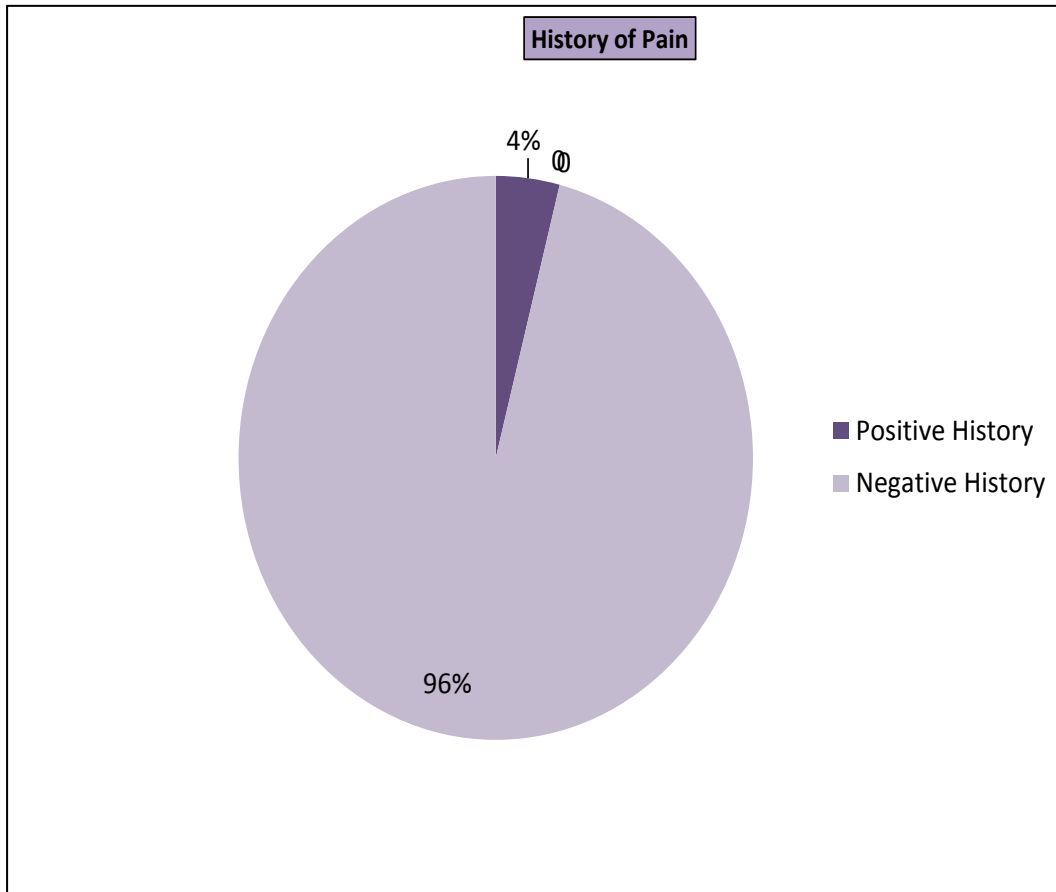
Table 7 Distribution of Contraceptives Methods



4.13. History Of Pain

Figure 4 shows that only 5 patients (4%) had a positive history of pain compared to 111 patients (96%) who did not have.

Figure 4: History of Pain



4.14. Breast Carcinoma Arising From Within a Fibroadenoma

Out of the 116 cases seen during the study period, none of the cases presented with carcinoma arising from within a fibroadenoma. This is in agreement with literature that cancer arising from within a fibroadenoma is extremely rare in the young women less than 35 years old. Only just over hundred cases of incidental malignancy in fibroadenoma have been reported in the world literature. The reported mean age in various case series is 42.5 years, which is about 20 years later than the peak age of occurrence of fibroadenoma [1].

CHAPTER FIVE: DISCUSSION

This study involved 116 patients with fibroadenoma. The number of fibroadenomas from the left breast was 52 (45%) and from the right were 64 (55%). The age range was 10 to 35 years with a mean of 22.8 years. This is similar to what is obtained in literature that the majority of cases of fibroadenoma affects females in the second and third decades of life (Kuijper, et al., 2001).

The size of fibroadenomas was mostly between 2 cm to 3 cm (26%) with a mean of 3.35 cm. And most literature states that most frequently fibroadenomas presents as breast lumps measuring up to 3 cm (Kuijper , et al., 2001)(Greenberg , et al., 1998). The number of patients that had giant fibroadenomas that were above 5cm in diameter were 23, accounting for 20% of all cases.

There were only 5 patients (4%) who presented with a family history of cancer. A family history of cervical cancer was the highest with 3 cases representing 60% of those with a positive history.

Only 41 patients (35%) presented with a history of use of contraception. Oral contraception was the most used method with 23 cases representing 56%.

Out of the 116 patients, only 5 cases presented with breast pain representing 4% of the cases. Fibroadenomas are usually painless.

There was no case that presented with breast cancer arising from within a fibroadenoma.

Carcinoma developing from within a fibroadenoma is extremely rare with only over hundred cases reported in the world literature. The reported mean age in various case series is 42.5 years, which is about 20 years later than the peak age of occurrence of fibroadenoma [1]. Therefore, expectant management of histologically confirmed fibroadenomas in women less than 35 years is safe. It is important to ensure that breast lumps in the young women less than 35years have a histological diagnosis because breast cancer cases have been recorded in this young age group at UTH (Nkuliyingoma, 2015). The study has demonstrated for the first time in Zambia that the prevalence of incidental

breast malignancy was extremely rare, even 0% in the selected population of women with clinically and histologically confirmed fibroadenoma. The justification of conservative management for the selected group of patients will prevent unnecessary excision of fibroadenoma and hence expected to result in a saving of the already overburdened surgical supply and surgical staff.

CHAPTER SIX: CONCLUSION

6.1 Conclusion

The prevalence of incidental malignancy within a fibroadenoma in women less than 35 years with fibroadenoma was zero. The proposed management of patients less than 35 years with histologically confirmed fibroadenoma should be expectant or conservative. However, where there is none availability of tru-cut biopsy or FNAC facility, we recommend excision biopsy.

6.2 Recommendation

1. We recommend a similar study considering the older age group of 35 to 45 years, since the peak age considered in literature of cancer within a fibroadenoma is 42 Years.
2. In order to avoid unnecessary aggressive treatment of fibroadenoma by excision, the Ministry of health must ensure that all District Hospitals are provided with Tru cut biopsy facilities to enable histological diagnosis of fibroadenoma and thence conservative management of the affected patients. This will prevent unnecessary excision of breast fibroadenoma in women less than 35 years old and hence maintenance of chest cosmetic appearance and money saving for individual and surgical care sponsoring by the nation.

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APPENDICES

Appendix 1

Data Collection Sheet

A. Patient Details

Age

File Number.....

Study ID Number.....

Address.....

.....

Contact Number.....

B. CLINICAL DETAILS

1. HISTORY

1.1 Duration of breast lump.....

1.2 Associated pain (tick)

1	2
NO	YES

1.3Rate of growth (tick)

1	2	3	4
No growth	Slow	Fast	Very fast

1.4 Family history of Breast/ Ovarian cancer in first degree relative (tick)

1	2
No	Yes

1.5 History of Hormonal contraceptives (tick)

1	2
No	Yes

2. EXAMINATION

2.1 Site of Breast lump (tick)

1	2
Right Breast	Left breast

2.2 Position of the lump (tick)

1	2	3	4	5
UOQ	UIQ	LOQ	LIQ	Central

3.3 Estimated size (tick)

1	2	3
≤3cm	3 to 5 cm	> 5cm

3.4 Consistence (tick)

1	2	3
soft	Firm	hard

3. INVESTIGATIONS

3.1 Ultrasound (tick)

1	2	3
Suspicious fibroadenoma	for Suspicious for malignancy	others

3.2 Histology (tick)

1	2	3
Fibroadenoma	FA with malignancy	Malignant

3.3 Malignant type

1	2	3	4
Ductal	Lobular	CIS	Others

APPENDIX II

PATIENT INFORMATION SHEET THE PREVALENCE OF INCIDENTAL MALIGNANCY IN PATIENTS WITH FIBROADENOMA AT UNIVERSITY TEACHING HOSPITAL (UTH), LUSAKA

Introduction

I Dr. Charles Mbewe, a Master of Medicine (MMED) student in General Surgery in the School of Medicine at the University Of Zambia, do hereby request for your participation in the above mentioned study. This study is in partial fulfilment for the award of a Masters of Medicine in General Surgery. I kindly request you to carefully read this document and ask me anything you do not understand. I want you to understand the purpose of your study and what is expected of you. Kindly note, that the participation in this study is absolutely voluntary. If you agree to take part in this study, you will be asked to sign this consent form in the presence of a witness.

The aim of the study

The purpose of the study is to determine the prevalence of incidental malignancy in patients with fibroadenoma at the University Teaching Hospital. The study will also endeavour to bring out some of the factors associated with malignancy in fibroadenoma in patients presenting at UTH. The findings of the study will help the Surgeons and the Histopathologists effectively manage patients with fibroadenoma.

Procedure of the study

If you agree to participate in this study, we will obtain information from you with the aid of a questionnaire. Your contact details will be required and your breasts and axilla examined in privacy from a consultation room. You will then be expected to go to the radiology department for ultrasound of your breast. An excision of the lump from your breast will then be performed in an operation theatre, under local anaesthesia. The excised lump will be taken to the Histology laboratory for analysis.

The results of the histology will be kept confidential and made available to you when ready, during the review.

Possible risks

Participation in this study, will like any surgery, expose you to some risks. Some of the risks include bleeding and pain. This will be mitigated by the use of pressure and suturing, and use of local anaesthetics and analgesia. Risk of post-operative wound infection will be minimized by use of antibiotics for post op prophylaxis. As every other patient, you will benefit from a uniform and effective assessment before the operation.

Confidentiality

All the information collected is strictly confidential. Data that will be collected, analysed, and reported on, will not include your name and therefore cannot be traced to you.

Consent

You will be expected to sign the consent form before participating in to the study. Note that your participation is absolutely voluntary and therefore, you are free to withdraw from the study at any time for any reason without any consequences to you. If you have any concerns or need any clarifications, feel free to contact Dr. Charles Mbewe or ERES CONVERGE, P/BAG 125, LUSAKA.

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