

## Assessment of Management and Life Style Modification in Uterine Fibroid Patient's

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### ABSTRACT

Uterine fibroids, also known as uterine Leiomyomas or fibroids, are benign smooth muscle tumours of the uterus that can be seen in women of child-bearing age. Women in their first trimester of pregnancy suffer no symptoms, but others may experience painful or heavy periods. The presence of fibroids might occasionally make it more difficult to become pregnant; however, this is uncommon. Approximately 20 percent to 80 percent of women develop fibroids by the time they reach the age of 50. If there are no symptoms, it is typically not necessary to seek medical attention. Paracetamol (acetaminophen) and other nonsteroidal anti-inflammatory medicines (NSAIDs) may be used to relieve pain and bleeding, while ibuprofen and other NSAIDs may be used to relieve pain and bleeding. It is possible that women who have heavy periods will require iron supplements. The use of medications from the gonadotropin-releasing hormone agonist family may help to reduce the growth of fibroids, but they are both expensive and associated with negative side effects. Patient counselling and education will aid in lowering the risk to patients and slowing the progression of the study. The work done to determine the causes of anaemia will aid in increasing knowledge about anaemia, including dietary modifications, and decreasing the progression of the study by providing patient counselling and education. The findings of a six-month study of 75 cases of fibroids discovered in 362 samples revealed that uterine fibroids are the most common malignancy in women of reproductive age. Uterine fibroids are not only found in women of null parity; they can also be found in women with multiple pregnancies. On the contrary, the prevalence of anaemia, heavy bleeding with clots, and metrorrhagia in fibroids is rather high, which has an impact on psychological state as a result of the stigma associated with the sickness status, and which interferes with everyday activities.

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### INTRODUCTION

Uterine fibroids are benign smooth muscle tumours of the uterus that are also known as uterine Leiomyomas or fibroids. The majority of women experience no symptoms, but some may experience painful or heavy periods. Fibroids can occasionally make it harder to become pregnant, although this is unusual. By the age of 50, between 20% to 80% of women have fibroids. In 2013, it was projected that 171 million women worldwide were impacted. They are more commonly encountered in the middle and late reproductive years. They generally shrink in

size after menopause. Surgery to remove uterine fibroids is more common in women from "upper social groups." Adolescents are significantly less likely than older women to acquire uterine fibroids. Up to 50% of women with uterine fibroids have no symptoms. Teenagers have a 0.4 percent frequency of uterine fibroids [1].

Uterine fibroids are a common reason for surgical removal of the uterus in the United States. If there are no symptoms, treatment is usually not required. Ibuprofen and other nonsteroidal anti-inflammatory drugs (NSAIDs) may assist with pain and bleeding, while paracetamol (acetaminophen) may aid with pain. Iron supplements may be required in women who have heavy periods. Medications of the gonadotropin-releasing hormone agonist family may reduce the size of the fibroids, but they are costly and have adverse effects. If the symptoms are severe, surgery to remove the fibroid or uterus may be necessary. Uterine artery embolization may also be beneficial. Fibroid cancers are extremely uncommon and are classified as leiomyosarcomas [2]. They do not appear to be caused by benign fibroids. The current research's goal is to perform an epidemiological study of the population based on age, genetic variables (hereditary), and the study's reason. In general, uterine fibroid develops as a result of growing irregular periods and anaemia [3]. The work that has been done to determine the causes that lead to early detection and management with proper education will aid in lowering the risk to the patients, slowing the progression of the study by providing patient counselling to the patient, and increasing knowledge about Anemia, including dietary modifications. Chronic fibroids have no treatment, but acute fibroids can be treated with competent care, counselling about irregular periods, and there is a possibility to decrease problems. Irregular periods, obesity, and anaemia are the most common causes of uterine fibroid. All uterine fibroid therapies aim to alleviate related symptoms and maintain management of Anemia and dietary changes.

## METHODOLOGY

### Inclusion Criteria

The Uterine fibroid patients aged between 24-40 years.

### Exclusion Criteria

The goal was to determine the clinical presentation and prevalence of uterine fibroids in the rural population, as well as to develop strategies to increase awareness and prompt reporting for treatment.

1. Women of reproductive age and those who are not (15- 45 years).
2. Women with fibroid, USG-diagnosed fibroids with duration of less than 12 weeks were barred from participating in the research.
3. Women who do not want to keep their uterus.
4. Women who have a myoma that is larger than 16 weeks in size.
5. Women who have more than three (sonological diagnosed)
6. Women suffering from severe anaemia or hemodynamic instability
7. Women who are unable to undergo anaesthesia.
8. A history of blood disorders, heart disease, renal illness, and so forth.
9. Women taking anticoagulant medication at the same time.
10. Women who have other concurrent illnesses such as pregnancy, cancer, or endometriosis that cause blood loss.
11. An intra-operative period of more than 2 hours for myoma excision
12. A history of prior myomectomy

### Study Variables

The study parameters were considered for the demographical study

1. Age of patients
2. Symptoms of patients
3. Pre-operative fibroid volume
4. Site of fibroid
5. Type of fibroid
6. Size of fibroid
7. Number of fibroids

### Study Tools

1. Clinical history and thorough examination- Uterine size and form (many or single myoma)
2. USG of pelvic organs: Preoperative sonographic evaluation of myomas size, number, location, and volume

3. Preoperative investigations include preoperative haemoglobin and hematocrit levels.
4. Direct assessment of intraoperative uterine size

### Study Technique

1. Surgical techniques: A Pfannenstiel incision was created. The uterus was removed, and the bowels were packed away with two huge dry mops.
2. Ethical permission was received from the Central Hospital South-Eastern Railway Ethical Committee.
3. Following myomectomy admission, the patient provided written informed consent following adequate counselling.
4. A thorough clinical examination and preoperative tests were performed, including Hb, Hct, and abdominal ultrasonography.

Data was gathered in preoperative, intraoperative, and postoperative proformas. Data was collected throughout a year and charted on an excel work sheet; the data was then examined to compare the various factors.

### Study Method

The research will be carried out in a specific private hospital. Patients diagnosed with uterine fibroid will be asked to provide a clinical history. Physical and internal examinations will be performed, as well as laboratory scan results [pelvic scan, entire abdomen, CBP, urine examination].

During the ward round participation collecting form, the information of the patients are collected using a questionnaire approach.

### Study Procedure

For six months, the Gynecology department at Dr. Andal's Lakshmi Fertility Clinic in Pogathota, Nellore, undertook a prospective cohort and cross-sectional study. The uterine fibroid patients were enrolled in the research based on the inclusion and exclusion criteria. We acquired the ICF from people willing to participate in the study. All essential and relevant baseline data were gathered using a "Patient data collection form," which covers patient demographics such as age, socioeconomic status, family income, occupation, and educational status.

1. General information like weight (present & 1 yr ago), medical history, medications & supplements, daily routines,

2. Lifestyle pattern, Allergies & habits.
3. Family medical history.
4. Past medical and medication history
5. Other verbal communication data with patients.
6. Patient information leaflet was provided and educated accordingly.

All collected & documented, Uterine Fibroid patient's data are analyzed based upon the following parameters.

1. Patient distribution based on PCOD.
2. Patient distribution based on age, tubectomy (sterilized patients).
3. Patient distribution based on cause of the disease.
4. Patient distribution based on treatment options.

### Management

The size and location of the tumours, the patient's age, symptoms, desire to retain fertility, and access to therapy, and the physician's experience should all be considered while treating uterine fibroids. The optimal therapy achieves four objectives: alleviation of indications and symptoms, long-term decrease in the size of fibroids, fertility preservation (if wanted), and avoidance of damage provides a treatment strategy for uterine fibroid.

The age group with the highest prevalence of fibroids was 40-59 years (57.3 percent), followed by 20-39 years (37.2 percent). The majority of these women were illiterate and had received no formal schooling (61.9 percent) (Figure 1). Only around 10% of the women had completed their secondary education, and many had dropped out. 59.8 percent were married, whereas 40.2 percent were single, divorced, or widowed. The majority of them (60.3 percent) had normal body mass indexes, but others were somewhat overweight (Table 1).

The patients' mean age at menarche was 12.43.6, and their mean age at menopause was 44.64.1. The majority of the patients had more than one kid. Miscarriages occurred in 5.7 percent of the patients' pregnancies. The majority of the patients had an intrauterine device implanted, most frequently a copper T.

### Complaints for seeking medical advice

Menstrual problem (37.7 percent) was the most prevalent reason for individuals seeking medical

assistance. This included heavy, irregular, or no periods. This was followed by symptoms of the pelvic region, such as discomfort (24.1 percent). In 23.9 percent of the cases, infertility was observed (Figure 2).

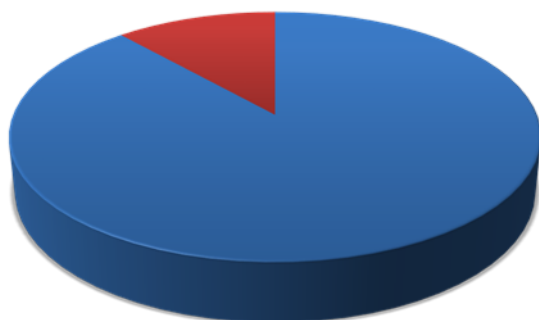
**Statistical Analysis**

The statistical package for Social Science software version 20 was used to analyse the data. The demographic features and determinants of uterine fibroid were described using descriptive statistics such as frequency and percentage. To determine the significance of the relationship between research variables, inferential statistics such as the chi square test were utilised.

**RESULTS**

**Descriptive Statistic**

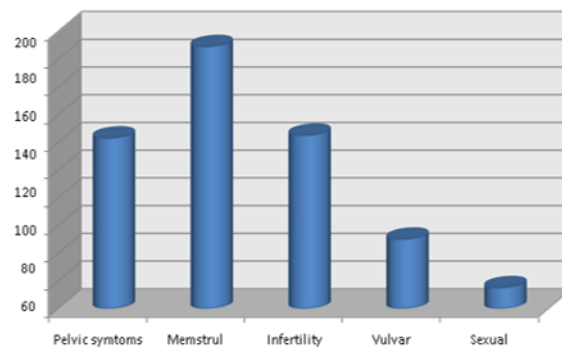
The study found that the overall point prevalence of identified ultrasonography uterine fibroids was 20%, ranging from 4.5 percent (20-29 years) to 9.4 percent (30-39 years), reaching 6.6 percent (40-45 years) among the 15-45 year age group. The ladies with uterine fibroid had an average age of 35 years. The majority (20.2 percent) were married, followed by multigravida (14.1 percent), primigravida (5.5 percent), and multigravida (1.1 percent). There were fewer cases (6%) with a family history of uterine fibroid and 9.4 percent with a history of using oral contraceptive pills.



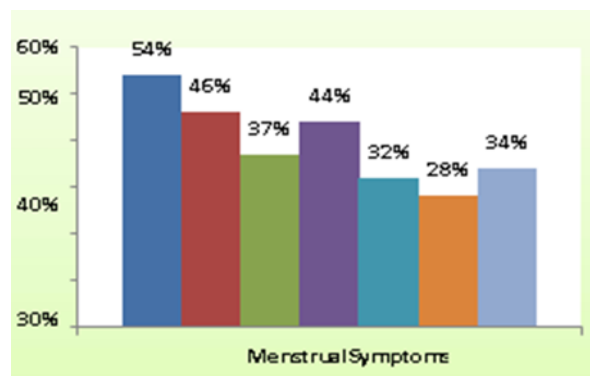
**Figure 1: Presence of fibroids; a. blue normal women, b. Women with fibroids**

In terms of nutritional status, 6.1 percent of women were underweight, 11.3 percent were overweight, and a smaller number (3.3 percent) were normal weight. In terms of eating habits, 15.7 percent were non-vegetarians, while 17.1 percent consumed frequent dairy products.

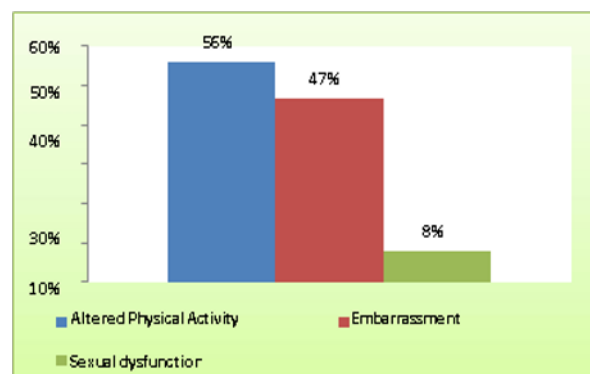
The majority of the participants had haemoglobin levels below the normal range, with 18.5 percent of women suffering from anaemia among those diagnosed with uterine fibroid.



**Figure 2: Common gynaecology complaints in women**



**Figure 3: Menstrual symptoms in women with fibroids**



**Figure 4: Bladder and bowel symptoms in patients with fibroids**

Overweight and obesity (p=0.000) and daily consumption of dairy products (p=0.000) have increased the incidence of UF, but usage of oral contraceptive pills and normal BMI have an inverse connection with UF risk (p=0.005) (Table 2).

**Clinical symptoms burden in diagnosed uterine fibroid among reproductive age women**

The data show the risk factors for uterine fibroid. Weight loss was observed by 20% of the ladies. More than half of the respondents (54%) reported menstrual problems: 46 percent reported heavy bleeding, 44 percent reported extended periods

**Table 1: Gynecological history**

Variable	Number
Mean age	
At menarche	12.4+3.6
At menopause	44.6+4.1
Pregnancies	
0	26(5%)
1	154(29.5%)
Multiple	342(65.5%)
Number of deliveries	
0	21(4.1%)
1	161 (30.8%)
>2	340 (65.1%)
Miscarriage	30 (5.7%)
Contraceptives	
Pills	89
IUD	139
Others	294

during menstruation, 32 percent reported bleeding between periods, 28 percent reported frequent periods, and 34 percent reported discomfort during menstruation. A quarter of the individuals had bowel and bladder symptoms, with 34 percent reporting frequent urine during the day and 23 percent reporting frequent night-time urination, and 60 percent reporting pressure feelings (Figure 3).

Some participants also carried the burden of changed physical, psychological, and sexual functioning: 56% of women reported disruption in daily physical activities, 47% reported stress and humiliation as a result of their medical state, and only 8% reported discomfort during sexual intercourse. In addition, only 9% of the patients developed gynaecological infections (Figure 4).

## DISCUSSION

The study's findings were addressed in relation to the aims and hypotheses, as well as the findings of prior research. Uterine fibroid is the most prevalent pelvic tumour in women, accounting for 21.4 percent of all cases worldwide [4]. A worldwide internet-based survey of 21,746 women was conducted using an online method approach, and self-reported prevalence of uterine fibroids ranged from 4.5 percent (UK) to 9.8 percent (Italy), reaching 9.4 percent (UK) to 17.8 percent (Italy) in the 40-49 year age group. 29 Whereas only 5% of 59411 women aged 18-54 years were found to have uterine fibroids in a survey conducted in the United

States, 6.83 percent were found among 2575 female patients in the south western Nigerian population, and 15% were found among ultrasound-diagnosed fibroids, with more found in black women than white women and 21.1 percent in north east Slovenia [5, 6]. The global prevalence rate is more comparable to the Indian situation. The current research prevalence rate of 20% among women of reproductive age is supported by a prevalence rate of 24% among women aged 46-50 years among rural South Indian women.

This prevalence rate of UF was higher in the younger age group of 30 years, with the highest number of identified fibroids at the age of 39, after which the prevalence of fibroids decreased until the age of 45 years. The current study did not look at those beyond the age of 45. Previous research has revealed that the age of the patients is strongly related with the prevalence of fibroids, with a lower rate seen among younger women, increasing to a peak at the age of 49 and then decreasing dramatically beyond the age of 50. This is understandable given that fibroid growth is dependent on hormone levels; hence, the incidence rate differed among age groups. As a result of being exposed to reduced amounts of female sex hormones following menopause, fibroids may drastically shrink in size. Null-parity, obesity, age, a family history of uterine fibroids, prenatal hormone exposure, polycystic-ovary syndrome, diabetes, and hypertension are all risk factors for the formation of uterine fibroids.

**Table 2: Patient demographic data**

Characteristics	Non- diagnosed case		Diagnosed case		P value
	N	%	N	%	
<b>Age</b>					
20 to 29	70	19.3	17	4.7	0.709
30 to 39	115	31.8	34	9.4	
40 to 45	102	28.2	24	6.6	
<b>Marital status</b>					
Married	0	0	02	0.6	0.042
Unmarried	287	79.3	73	20.2	
<b>BMI</b>					
Underweight	71	19.6	22	6.1	0.286
Normal	146	40.3	12	3.3	
Overweight and obesity	70	19.3	41	11.32	
<b>Parity</b>					
Nulligravida	11	3.0	04	1.1	0.829
Primigravida	81	22.4	20	5.5	
Multigravida	195	53.9	51	14.1	
<b>Family history of UF</b>					
No	275	76.0	67	18.5	0.029
Yes	12	3.3	8	2.2	
<b>Oral contraceptive history</b>					
No	181	50.0	41	11.3	0.005
Yes	106	29.3	34	9.4	
<b>Dietary pattern</b>					
No regular dairy products	116	22.1	13	3.6	0.000
Regular dairy products	171	57.2	62	17.1	
<b>Tobacco chewing</b>					
No	240	66.3	58	16.0	0.204
Yes	47	13.0	17	4.7	
<b>Hb% status</b>					
Anemic	264	72.9	67	18.5	0.465
Non anemic	23	6.4	8	2.2	

The current study's findings did not demonstrate any statistically significant association with these epidemiological variables, however there were more instances recorded among those of advanced age. Obesity and a high body mass index have been linked to an increased incidence of uterine fibroids when compared to a low BMI. These findings are consistent with previous findings, which indicated that BMI in women with fibroids was 0.9kg/m<sup>2</sup> higher on average than in women without fibroids. The current study found that the prevalence of fibroids was greater (11.32 percent) in women with a BMI of 26 to 29kg/m<sup>2</sup> than in women with a BMI of 17.5 to 23.9kg/m<sup>2</sup> (3.3 percent).

traceptive or an injectable contraceptive depot such proxy progesterone acetate, smoking in women, a low body mass index, and parity, have been linked to a lower incidence of UF [7]. In addition, the current study found an inverse association between uterine fibroids and a history of using oral contraceptives, consuming dairy products on a regular basis, and having a low body mass index. The primary cause and genetic effect, particularly for early start of uterine fibroid, are genetic and inherited. However, the current investigation discovered that a relatively small fraction (6%) had a family history of uterine fibroid, and genetic analysis was not within the scope of the current study.

Some variables, including as the use of an oral con- Uterine fibroid instances are generally asymp-

tomatic, while signs of fibroid uterus are identified in 81% of symptomatic patients who complain of monthly abnormalities. The current study discovered that the majority of patients complained about abnormalities during menstruation (54%) and had more bleeding symptoms such as severe bleeding (38%), protracted bleedings (44%), haemorrhage between periods (32%), frequent periods (28%), and dysmenorrhea (34 percent). The current study's findings are consistent with earlier research that found increased menstruation symptoms such as menorrhagia, dysmenorrhea, metrorrhagia, polymenorrhagia, and leucorrhoea.

Participants in the current study also reported bowel and bladder symptoms, with 24 percent experiencing frequent urination during the day and 15 percent experiencing frequent night-time urination, 44 percent experiencing tightness in the pelvic area, and 8 percent women complaining of pain during sexual intercourse if fibroids were present near the vagina or cervix. Previous research has shown that women typically report lower back discomfort, bladder or bowel problems, and complain of pain during sexual intercourse.

The current study also investigated patients experiencing physical and psychological disturbances as a result of disease process and discovered that 59 percent of women experienced disruption in daily physical activities, 27 percent of women self-reported stress, and 35 percent of women felt embarrassment as a result of disease condition. According to a supporting study, the symptom load of uterine fibroid impacts the quality of life of women.

Menstrual abnormalities such as bleeding symptoms, blood clots during menstruation, change in menstrual length, renal symptoms, and pressure symptoms are indicators of uterine fibroid risk, according to the findings of the current study. These findings are consistent with prior research. The research covers linked lifestyle risk factors of UF such as nutrition, physical activity, and stress, and occupational intensity on uterine fibroids, which has no significant connection with risk of uterine fibroid in women [8]. The current study found that there is no effect of gynaecological infection, gynaecological surgery, chewing tobacco habit, and altered physical and sexual functions on the prevalence of uterine fibroid with history, but dietary habits of eating more dairy products had an impact on the risk of uterine fibroid.

## CONCLUSION

A six-month analysis of 75 instances of fibroids among 362 samples found that uterine fibroids are

the most prevalent malignancy of reproductive age. Uterine fibroids are not limited to null parity, but can also occur in multigravida. To the contrary, the incidence of anaemia, severe bleeding with clots and metrorrhagia in fibroids is fairly high, which has an influence on psychological state by shame due to illness status, which interferes with daily activity. Sometimes fibroids are asymptomatic and do not require therapy; however, other times severe symptoms such as menorrhagia, dysmenorrhea, and pressure symptoms arise, necessitating treatment, which can have a detrimental influence on several parts of a woman's life.

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## Conflict of Interest

The authors declare that there is no conflict of interest.

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