

## A Clinical, Sonological and Pathological Study of Fibroid Uterus

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**Abstract:** Background: Uterine fibroids are benign tumors arising from smooth muscle cells of myometrium. They are slow growing tumours and account for 5-20% of women in reproductive age group. Although benign they present with heavy menstrual bleeding causing substantial morbidity unless treated.

Objective: The study aims to analyse clinical, sonological and pathological spectrum in cases of leiomyoma of uterus.

Materials and methods: A clinical study of 50 cases of fibroid uterus was made in VGH from FEB 2015-JUNE 2016. Diagnosis was confirmed by ultrasound. The cases selected for medical management were excluded from the study.

Results: The maximum incidence was seen in the age group 30-40 years with 29 cases (58%) and 6 cases (12%) in the age group 20-30 and 15 cases (30%) in the age group 40-50 years. 31 cases (62%) were para 2 or more. The most common clinical presentation was menorrhagia seen in 38 cases (76%), Intramural fibroids was seen in 39 cases (78%). Hysterectomy was the most common procedure. Total abdominal hysterectomy was done in 28 cases (56%), Total abdominal hysterectomy with bilateral salpingo-oophorectomy in 17 cases (34%) and Laparoscopic assisted vaginal hysterectomy was done in 1 case (2%).

Conclusion: Fibroids are the most common benign tumors of the uterus in the reproductive age group. Although benign they cause heavy menstrual bleeding and appropriate, timely diagnosis and treatment is essential to reduce morbidity associated with it.

**Key words:** menorrhagia, fibroids, hysterectomy, myomectomy.

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### I. Introduction

Fibroids are the most common benign tumour of uterus<sup>[1]</sup>. They are monoclonal tumours of uterine smooth muscle cells arising from a somatic mutation in a progenitor myocyte. They are slow growing tumours and account for 5-20% of women in reproductive age group. Although benign, symptomatic fibroids are associated with considerable morbidity including abnormal bleeding that can lead to anemia, transfusions, or emergency surgery; pain or pressure on pelvic and abdominal organs; bladder pressure; and adverse reproductive outcomes<sup>[2]</sup>

These are strongly dependent on estrogen and their usual age of distribution is from menarche to menopause. Fibroids may be asymptomatic. Symptomatic fibroids burden patients both psychologically and physiologically by shortening of menstrual cycles, prolonged menstrual bleeding and even leading to infertility. Ultrasound is the gold standard of investigation due to its high accessibility and relatively low cost.

Treatment depends on various factors but surgical treatment is preferable in most of the cases and is curative. For women who have completed childbearing hysterectomy forms an attractive option as it eliminates both symptoms and chances of recurrence. For women who want to conceive myomectomy is indicated. Recent trend has been towards nonsurgical approaches like GnRH agonists, RU486, selective uterine artery embolisation and radiofrequency thermal ablation.

### OBJECTIVE :

The study aims to analyse clinical, sonological and pathological spectrum in cases of leiomyoma of uterus.

### II. Materials and Methods

A clinical study of 50 cases of fibroid uterus was made in VGH from FEB 2015-JUNE 2016. Diagnosis was confirmed by ultrasound. The cases selected for medical management were excluded from the study. On admission, a detailed history, clinical examination and

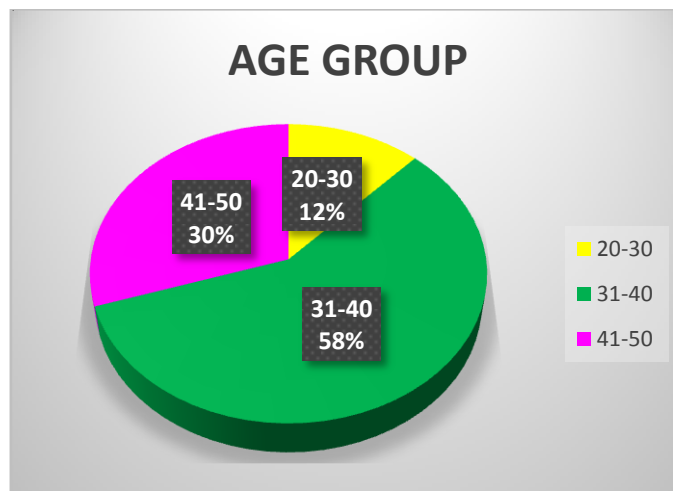
Investigations were done. Depending on the presentation and clinical details surgery was done. The specimens were sent for histopathology and histopathological findings recorded. Results were tabulated and analysed using SPSS version 24.

### III. Results

**TABLE 1 DEMOGRAPHIC FACTORS**

DEMOGRAPHIC FACTOR	NO OF CASES (n=50)	PERCENTAGE(%)
AGE		
20-30 years	6	12%
30-40 years	29	58%
40-50 years	15	30%
PARITY		
Nullipara	3	6%
Para1	16	32%
Para 2 and above	31	62%

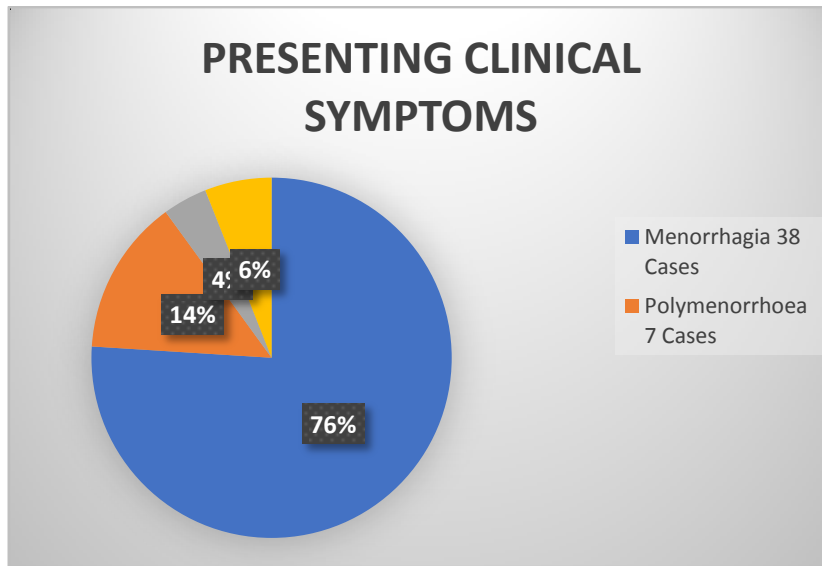
The maximum incidence was seen in the age group 30-40 years with 29 cases (58%) and 6 cases (12%) in the age group 20-30 and 15 cases (30%) in the age group 40-50 years. 31 cases (62%) were para 2 or more.



**TABLE 2 PRESENTING CLINICAL SYMPTOMS**

PRESENTING SYMPTOM	NO OF CASES (n=50)	PERCENTAGE (%)
Asymptomatic	3	6%
Menorrhagia	38	76%
Polymenorrhea	7	14%
Metrorrhagia	2	4%

The most common clinical presentation was menorrhagia seen in 38 cases (76%), followed by polymenorrhea seen in 7 cases (14%) and metrorrhagia in 2 cases (4%). Fibroids was asymptomatic in 3 cases (6%)

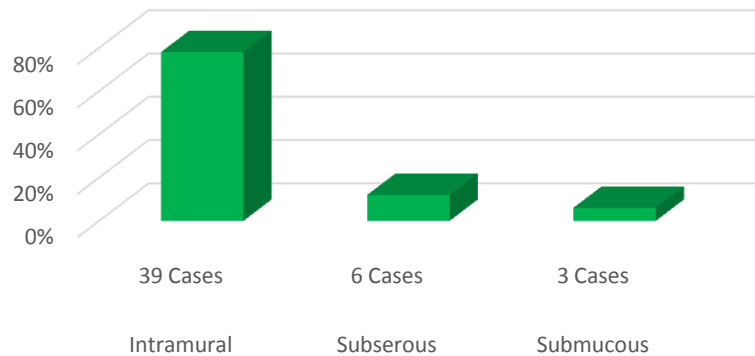


**TABLE 3 TYPE OF FIBROID**

TYPE OF FIBROID	NO OF CASES (n=50)	PERCENTAGE (%)
Intramural	39	78%
Subserous	6	12%
Submucous	3	6%

Intramural fibroids was seen in 39 cases (78%) and subserous fibroids in 6 cases (12%) and submucous fibroids in 3 cases (6%)

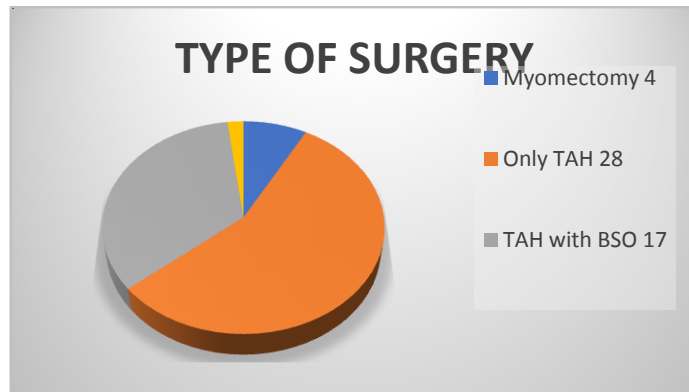
**DEPENDING ON LOCATION**



**TABLE 4 TYPE OF SURGERY**

TYPE OF SURGERY	NO OF CASES (n=50)	PERCENTAGE (%)
Myomecctomy	4	8%
TAH	28	56%
TAH +BSO	17	34%
LAVH	1	2%

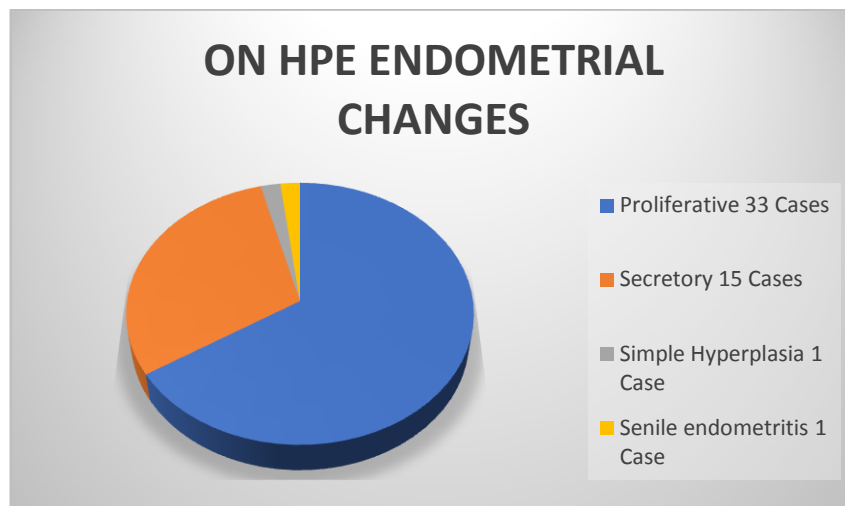
Hysterectomy was the most common procedure. Total abdominal hysterectomy was done in 28 cases (56%), Total abdominal hysterectomy with bilateral salpingo-oophorectomy in 17cases (34%) and Laparoscopic assisted vaginal hysterectomy was done in 1 case (2%). Myomectomy was done in 4 cases (8%)



**TABLE 6 HISTOPATHOLOGICAL CHANGES**

HPE findings	NO OF CASES	PERCENTAGE (%)
Endometrium		
Proliferative phase	33	66%
Secretary phase	15	30%
Simple hyperplasia	1	2%
Senile endometritis	1	2%

Proliferative endometrium was seen in 33 cases (66%), secretary phase seen in 15 cases (30%), simple hyperplasia in 1 case (2%) and senile endometritis in 1 case (2%).



**TABLE 6 DEGENERATIVE CHANGES**

DEGENERATIVE CHANGES	NO OF CASES	PERCENTAGE (%)
HYALINE	5	10%
CYSTIC	1	2%
CALCARIOUS	1	2%

Hyaline degeneration was the commonest type of degeneration seen in 5 cases (10%)

#### IV. Discussion

Fibroids are found in women of childbearing age most commonly in the 3<sup>rd</sup> decade. The maximum incidence was seen in the age group 30-40 years with 29 cases (58%) similar to the 31-40 years age group seen in the studies by Karthikeyan et al (46.15%)<sup>[3]</sup>, Gowri et al (41.3%)<sup>[4]</sup>.

The most common clinical presentation in the present study was menorrhagia seen in 38 cases (76%). Menorrhagia was also the presenting complaint in studies by Sarfraz (68%)<sup>[5]</sup>, Karthikeyan (62.5%), Rather (35.43%)<sup>[6]</sup>, Gowri (49.03%) and Manjula K (35.4%)<sup>[7]</sup>.

Intramural fibroids were seen in 39 cases (78%) and subserous fibroids in 6 cases (12%) and submucous fibroids in 3 cases (6%) in the present study. Jung et al observed intramural fibroids in 55.7% cases, subserous fibroids in 16.3% cases, 15.6%, and submucosal fibroids in 12.4% cases respectively <sup>[8]</sup>. Abraham and Saldanha

observed intramural fibroids in 61.5% cases, subserosal leiomyomas in 9% cases and submucosal leiomyomas in 5% cases [9]. In this study, proliferative endometrium was seen in 33 cases (66%), secretory phase seen in 15 cases (30%), simple hyperplasia in 1 case (2%) and senile endometritis in 1 case (2%) similar to the studies by Purandare et al<sup>[10]</sup> Sanyal et al<sup>[11]</sup> (Sanyal. MK, 1981), Chethana M et al<sup>[12]</sup> (Chethana, M, 2013)

In the present study, hyaline degeneration was the commonest type of degeneration seen in 5 cases (10%). Gowri et al reported secondary changes in 22.6% cases with hyalinization (16.9%) being the commonest secondary degenerative changes followed cystic (3.5%) and myxoid (1.6%) change.

### **V. Conclusion:**

Fibroids are the most common benign tumors of the uterus in the reproductive age group. Although benign they cause heavy menstrual bleeding and appropriate, timely diagnosis and treatment is essential to reduce morbidity associated with it.

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