

**ORIGINAL RESEARCH**

# Retrospective Analysis of Clinical Features and Ultrasonographic findings of Uterine Fibroid Cases at a Tertiary Care Hospital

<sup>1</sup>Surabhi Gupta, <sup>2</sup>Vaibhav Jain, <sup>3</sup>(Col.) Manoj Kumar Tangri

<sup>1</sup>Assistant Professor, <sup>3</sup>Professor, Department of Obstetrics and Gynaecology, Shri Ram Murti Smarak Institute of Medical Sciences, Bareilly, Uttar Pradesh, India

<sup>2</sup>Assistant Professor, Department of Radiology, Shri Ram Murti Smarak Institute of Medical Sciences, Bareilly, Uttar Pradesh, India

**Corresponding Author**

Surabhi Gupta

Assistant Professor, Department of Obstetrics and Gynaecology, Shri Ram Murti Smarak Institute of Medical Sciences, Bareilly, Uttar Pradesh, India

**Email:** [drsurabhi90@gmail.com](mailto:drsurabhi90@gmail.com)

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**ABSTRACT**

**Background:** The present retrospective study planned for evaluating 50 uterine fibroid cases. **Materials & Methods:** Complete demographic and clinical details of 50 subjects were obtained from record files. A Performa was made and detailed ultrasonography (USG) findings were recorded separately. Categorization of the USG findings was done into following variables: fibroid homogeneity/heterogeneity, fibroid echo pattern and fibroid outline. Categorization of the uterine fibroid cases was done across different age groups. All the results were recorded in Microsoft excel sheet followed by statistical analysis using SPSS software. **Results:** Increase in incidence of uterine fibroids was seen with increasing age. Majority of the fibroids were multiple nodules. Menorrhagia, Lower abdominal pain and Pregnancy check were the clinical presentation/indications in 70 percent, 56 percent and 24 percent of the patients respectively. Majority of the fibroids on USG showed Heterogeneity with Hypochoic pattern being the most common pattern. **Conclusion:** A falling trend of new uterine fibroid diagnoses among predominantly symptomatic women are seen which might be because of secular trends of decreasing hysterectomies.

**Key words:** Uterine, Fibroids

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**INTRODUCTION**

Uterine fibroids or leiomyomata are the most common benign tumor affecting women. An early 2003 study by Baird et al. showed that the estimated incidence of fibroids in women by age 50 was 70% for white women and reached over 80% black women.<sup>1, 2</sup> They are comprised of monoclonal cells arising from the myometrium. Continued research to determine the etiology of leiomyomas is ongoing. Several studies have identified specific gene mutations associated with fibroids. Some mutations have been linked to defects in cell transformation involving the RNA polymerase II transcriptional mediator subunit, MED12.<sup>3, 4</sup>

Symptoms of fibroids are abnormal uterine bleeding, pelvic pain, dyspareunia, obstructive effects on bladder or rectum, and infertility. Fibroid size does not necessarily determine the severity of clinical symptoms. In a large online survey conducted in eight countries with at least 2,500 participants in each

country (4000 in USA), 59.8% of women with a diagnosis of uterine fibroids self-reported heavy and prolonged vaginal bleeding compared to 37.4% in those without fibroids. Pelvic pain at various times in the menstrual cycle and during sexual intercourse was also significantly increased in fibroid patients.<sup>5-7</sup> Hence; the present retrospective study planned for evaluating 50 uterine fibroid cases.

**MATERIALS & METHODS**

The present retrospective study conducted in Department of Obstetrics and Gynaecology, Shri Ram Murti Smarak Institute of Medical Sciences, Bareilly, Uttar Pradesh (India) for evaluating 50 uterine fibroid cases. Complete demographic and clinical details of all the subjects were obtained from record files. A Performa was made and detailed ultrasonography (USG) findings were recorded separately. Categorization of the USG findings was done into following variables: fibroid

homogeneity/heterogeneity, fibroid echo pattern and fibroid outline. Categorization of the uterine fibroid cases was done across different age groups. All the results were recorded in Microsoft excel sheet followed by statistical analysis using SPSS software. Univariate analysis was done for evaluation of results.

## RESULTS

Mean age of the patients was 41.5 years. Increase in incidence of uterine fibroids was seen with increasing

age. Majority of the fibroids were multiple nodules. Menorrhagia, Lower abdominal pain and Pregnancy check were the clinical presentation/indications in 70 percent, 56 percent and 24 percent of the patients respectively. Majority of the fibroids on USG showed Heterogeneity with Hypoechoic pattern being the most common pattern. Fibroid outline was regular and smooth in 98 percent of the patients.

**Table 1: Demographic data**

Variable	Number	Percentage	
Age group (years)	Less than 25	9	18
	25 to 35	12	24
	36 to 45	14	28
	More than 45	15	30
Number of fibroid nodules	Solitary nodule	13	26
	Multiple nodule	37	74

**Table 2: Clinical Presentation/ Indications for scan**

Clinical presentation	Number	Percentage
Dysmenorrhea	4	8
Amenorrhea	11	22
Menorrhagia	35	70
Lower abdominal pain	28	56
Pregnancy check	12	24

**Table 3: USG features**

USG features	Number	Percentage	
Fibroid homogeneity/heterogeneity	Homogeneity	12	24
	Heterogeneity	38	76
Echo pattern	Hyperechoic	19	38
	Hypoechoic	28	56
	Isoechoic	3	6
Fibroid outline	Regular smooth	49	98
	Irregular	1	2

## DISCUSSION

Uterine fibroids are the most common gynaecological disorder; as such, it should not be surprising that, over the centuries, a whole series of sometimes very strange approaches have been attempted and unlikely methods proposed, mostly unsupported by any scientific evidence. Ever since the first hysterectomy was performed, treatment of symptomatic fibroids has been surgical. Different techniques have been employed, initially consisting of total abdominal hysterectomy or myomectomy. To decrease the impact of surgery, several mini-laparotomic techniques, including combined mini-laparotomy-assisted vaginal surgery, have also been utilized.<sup>8-10</sup> Menorrhagia, pelvic pain with or without dysmenorrhea or pressure symptoms, infertility, and recurrent pregnancy loss are the common symptoms that women with fibroids may experience. However, many times, it can be asymptomatic too. Most information that outlines the connection between the presence of fibroids and current symptoms is not

confirmed yet. Even medical professionals and researchers have determined that the currently mentioned symptoms are the effects of myomectomy. Although there is no clear correlation between fibroids and infertility, an observational study conducted in the USA found that the prevalence of fibroids in infertile women can be slightly high.<sup>9-11</sup> Hence; the present retrospective study planned for evaluating 50 uterine fibroid cases.

Mean age of the patients was 41.5 years. Increase in incidence of uterine fibroids was seen with increasing age. Majority of the fibroids were multiple nodules. Menorrhagia, Lower abdominal pain and Pregnancy check were the clinical presentation/indications in 70 percent, 56 percent and 24 percent of the patients respectively. In a similar study conducted by Zimmermann A et al, authors showed relevant results of the study for the indication uterine fibroids providing data on self-reported prevalence, symptomatology and management of uterine fibroids. The self-reported prevalence of

uterine fibroids ranged from 4.5% (UK) to 9.8% (Italy), reaching 9.4% (UK) to 17.8% (Italy) in the age group of 40-49 years. Women with a diagnosis of uterine fibroids reported significantly more often about bleeding symptoms than women without a diagnosis: heavy bleedings, prolonged bleedings, bleeding between periods, frequent periods, irregular and predictable periods. They concluded that uterine fibroid is a common concern in women at fertile age causing multiple bleeding and pain symptoms which can have a negative impact on different aspects in women's life.<sup>12</sup> In another similar study conducted by Baird DD et al, authors investigated development of fibroids by enrolling women without a clinical diagnosis of fibroids and screening for fibroids with ultrasound at baseline. The Study of Environment, Lifestyle and Fibroids enrolled 1,696 African American women aged 23–34 years. More than 95% of participants contributed all the requested biological specimens at baseline. Study ultrasound examinations revealed undiagnosed fibroids in 378 women (22% of participants). The retention rate for the first follow-up was 87%.<sup>13</sup>

In the present study, majority of the fibroids on USG showed Heterogeneity with Hypoechoic pattern being the most common pattern. Fibroid outline was regular and smooth in 98 percent of the patients. Edzie EKM et al, in another study documented the age of first diagnosis and incidence rates of uterine fibroids in our urban setting. They reviewed the ages and year of diagnosis of all 2,469 patients with the first diagnosis of uterine fibroids. The incidence rate (per 100,000) of uterine fibroids in 2018, 2019, 2020 and 2021 were 66.77, 81.86, 85.60 and 92.40 respectively, with 35–39 age group recording the highest in all years. The incidence rate of uterine fibroids increased as the years progressed and it is mostly high in 35–39 years age category, with a decreasing annual mean age trend indicative of early diagnosis.<sup>14</sup>

## CONCLUSION

A falling trend of new uterine fibroid diagnoses among predominantly symptomatic women is seen which might be because of secular trends of decreasing hysterectomies.

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