



Original Article

## Prevalence and Clinical Presentation of Uterine Fibroids in Women Attending Gynecology OPD

Dr. Archana Singode<sup>1</sup>, Dr. Sanjula Gayathri R<sup>2\*</sup>, Dr. Girija MK<sup>3</sup>

<sup>1</sup>Assistant Professor, Department of OBG, Dr. B. R. Ambedkar Medical College & Hospital, Bengaluru, Karnataka

<sup>2</sup>Assistant Professor, Department of OBG, Dr. B. R. Ambedkar Medical College & Hospital, Bengaluru, Karnataka

<sup>3</sup>Professor, Department of OBG, Dr. B. R. Ambedkar Medical College & Hospital, Bengaluru, Karnataka

 OPEN ACCESS

### Corresponding Author:

**Dr. Sanjula Gayathri R**

Assistant Professor, Department of  
OBG, Dr. B. R. Ambedkar Medical  
College & Hospital, Bengaluru,  
Karnataka

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

Received: 05-02-2026

Accepted: 28-02-2026

Available online: 18-03-2026

Copyright © International Journal of  
Medical and Pharmaceutical Research

### ABSTRACT

**Background:** Uterine fibroids are the most common benign tumors of the female reproductive tract and represent a significant cause of gynecological morbidity among women of reproductive age. They may present with symptoms such as heavy menstrual bleeding, pelvic pain, infertility, and pressure symptoms, although some women remain asymptomatic. The present study was undertaken to determine the prevalence and clinical presentation of uterine fibroids among women attending the gynecology outpatient department of a tertiary care hospital.

**Materials and Methods:** This prospective observational study was conducted in the Department of Obstetrics and Gynecology of a tertiary care teaching hospital over a period of 12 months (January 2023 to December 2023). A total of 1,000 women attending the gynecology outpatient department were evaluated. Women diagnosed with uterine fibroids based on clinical examination and ultrasonography were included in the study. Data regarding demographic characteristics, clinical presentation, fibroid type, size, and associated complications were collected and analyzed using descriptive statistical methods.

**Results:** Among the 1,000 women evaluated, 180 (18%) were diagnosed with uterine fibroids. The majority of cases were observed in the 31–40 years age group (44%), followed by 41–50 years (38%). Heavy menstrual bleeding (40%) was the most common presenting symptom, followed by lower abdominal pain (22%) and dysmenorrhea (15%). Based on location, intramural fibroids (55%) were the most common type. Most fibroids measured 3–5 cm (40%) in size. Anemia due to heavy menstrual bleeding (35%) was the most common complication.

**Conclusion:** Uterine fibroids were observed in 18% of women attending the gynecology outpatient department, with the highest occurrence in the late reproductive age group. Heavy menstrual bleeding was the most common symptom, and intramural fibroids were the predominant type. Early diagnosis and appropriate management are essential to prevent complications and improve patient outcomes.

**Keywords:** Uterine fibroids; Leiomyoma; Prevalence; Intramural fibroids.

### INTRODUCTION

Uterine fibroids, also referred to as leiomyomas, are benign monoclonal tumors originating from the smooth muscle cells of the myometrium. They represent the most common benign tumors of the female reproductive tract and constitute a major cause of gynecological morbidity among women of reproductive age<sup>1</sup>. Although these tumors are non-malignant, their presence may lead to several clinical problems including menstrual disturbances, pelvic pain, infertility, and complications during pregnancy<sup>2</sup>.

The prevalence of uterine fibroids varies widely across different populations depending on age distribution, ethnicity, and diagnostic techniques used. Epidemiological studies suggest that approximately 20–40% of women of reproductive age develop uterine fibroids, although the actual prevalence may be higher because many women remain asymptomatic<sup>3</sup>. Large population-based studies have demonstrated that the cumulative incidence increases progressively with age and may reach nearly 70% by the age of 50 years<sup>4</sup>. In recent years, the global burden of uterine fibroids has continued to increase due to improved diagnostic methods and changes in lifestyle and reproductive patterns<sup>5</sup>.

The exact etiology of uterine fibroids remains unclear, but hormonal, genetic, and environmental factors are believed to contribute to their development. Estrogen and progesterone play an important role in stimulating the growth of fibroid tissue, which explains why these tumors are more common during the reproductive years and tend to regress after menopause<sup>6</sup>. Several risk factors have been associated with fibroid development, including increasing age, early menarche, obesity, hypertension, nulliparity, and family history<sup>7</sup>. Recent molecular studies have also identified mutations in the MED12 gene, which are considered an important factor in the pathogenesis of uterine leiomyomas<sup>8</sup>.

Clinically, uterine fibroids may present with a wide spectrum of symptoms depending on their size, number, and anatomical location. Heavy menstrual bleeding (menorrhagia) is the most common symptom and can lead to iron deficiency anemia in many patients<sup>9</sup>. Other clinical manifestations include dysmenorrhea, pelvic pain, lower abdominal discomfort, infertility, and pressure symptoms affecting the bladder or bowel<sup>10</sup>. However, a considerable proportion of women remain asymptomatic, and fibroids are often detected incidentally during routine gynecological examinations or imaging studies<sup>11</sup>. Ultrasonography is widely used as the primary imaging modality for the diagnosis of uterine fibroids because it is non-invasive, widely available, and cost-effective<sup>12</sup>. Imaging also helps determine the number, size, and location of fibroids, which are commonly classified as intramural, submucosal, or subserosal depending on their position within the uterine wall<sup>13</sup>. This classification is clinically important because the location of fibroids influences both the symptoms experienced by patients and the treatment approach.

Uterine fibroids contribute significantly to gynecological morbidity and remain one of the leading indications for hysterectomy worldwide<sup>14</sup>. Despite their high prevalence, the pattern of clinical presentation varies between populations and healthcare settings. Therefore, understanding the prevalence and clinical characteristics of fibroids in specific populations is important for improving early diagnosis and management.

The present study was undertaken to determine the prevalence and clinical presentation of uterine fibroids among women attending the gynecology outpatient department of a tertiary care hospital.

## **MATERIALS AND METHODS:**

### **Study Design**

The present study was conducted as a prospective observational study to determine the prevalence and clinical presentation of uterine fibroids among women attending the gynecology outpatient department.

### **Study Setting**

The study was carried out in the Department of Obstetrics and Gynecology of a tertiary care teaching hospital..

### **Study Duration**

The study was conducted over a period of 12 months, from January 2023 to December 2023.

### **Study Population**

All women attending the Gynecology Outpatient Department (OPD) during the study period were screened for uterine fibroids through clinical evaluation and ultrasonographic examination.

Women who were diagnosed with uterine fibroids based on ultrasonographic findings were included in the study and evaluated for clinical presentation and associated characteristics.

### **Sample Size**

During the study period, a total of 1,000 women attending the gynecology OPD were evaluated, among whom 180 women were diagnosed with uterine fibroids and included in the analysis.

### **Inclusion Criteria**

The following patients were included in the study:

- Women aged 20–50 years attending the gynecology OPD
- Patients diagnosed with uterine fibroids on ultrasonography
- Patients willing to participate in the study

## Exclusion Criteria

The following patients were excluded:

- Pregnant women
- Women with suspected or confirmed uterine malignancy
- Patients with adenomyosis without fibroids
- Women with incomplete clinical information

## Data Collection

After obtaining informed consent, data were collected using a **structured proforma**. Each patient underwent a detailed evaluation including:

### 1. Demographic Information

- Age
- Parity
- Socioeconomic status

### 2. Clinical History

Patients were interviewed regarding their presenting complaints, including:

- Menorrhagia
- Dysmenorrhea
- Lower abdominal pain
- Infertility
- Urinary symptoms
- Pelvic pressure symptoms

Menstrual history, obstetric history, and duration of symptoms were also recorded.

### 3. Clinical Examination

All patients underwent a **general physical examination and pelvic examination**.

General examination included assessment of:

- Pallor
- Body mass index
- Blood pressure

### Pelvic examination included:

- Per speculum examination
- Bimanual pelvic examination to assess uterine size, shape, and mobility.

### 4. Ultrasonographic Evaluation

All suspected cases were confirmed by **pelvic ultrasonography**, which was used to determine:

- Presence of fibroids
- Number of fibroids
- Size of fibroids
- Anatomical location of fibroids

**Fibroids were classified based on location as:**

- **Intramural**
- **Subserosal**
- **Submucosal**

### 5. Assessment of Complications

Patients were also evaluated for complications associated with fibroids such as:

- Anemia
- Infertility
- Pressure symptoms
- Recurrent pregnancy loss

Hemoglobin levels were measured to assess anemia in women presenting with heavy menstrual bleeding.

## Ethical Considerations

The study was conducted after obtaining approval from the Institutional Ethics Committee (IEC) of the hospital. Written informed consent was obtained from all participants prior to enrollment in the study.

## Statistical Analysis

The collected data were entered into Microsoft Excel and analyzed using statistical software such as SPSS Version 20.0

Descriptive statistics were used to summarize the data. Categorical variables were expressed as frequency and percentage, while continuous variables were presented as mean  $\pm$  standard deviation where applicable. The results were presented in the form of tables to facilitate interpretation.

## RESULTS

Among the 1000 women attending the gynecology OPD during the study period, 820 (82%) women did not have uterine fibroids, whereas 180 (18%) were diagnosed with uterine fibroids, indicating a prevalence of 18% in the study population. (Table 1)

**Table 1: Prevalence of Uterine Fibroids among Women Attending Gynecology OPD**

Finding	Number	Percentage
Women without fibroids	820	82%
Women with fibroids	180	18%

The majority of women with uterine fibroids were in the 31–40 years age group (44%), followed by 41–50 years (38%), while 18% of women were aged 20–30 years, indicating a higher occurrence during the late reproductive age group. (Table 2)

**Table 2: Age Distribution of Women with Uterine Fibroids**

Age Group (years)	Number	Percentage
20–30	32	18%
31–40	79	44%
41–50	69	38%

Among women with uterine fibroids, multiparous women constituted the majority (75%), while 25% were nulliparous, suggesting a higher occurrence of fibroids among multiparous women in this study population. (Table 3)

**Table 3: Parity Distribution among Women with Uterine Fibroids**

Parity	Number	Percentage
Nulliparous	45	25%
Multiparous	135	75%

The most common presenting symptom among women with uterine fibroids was heavy menstrual bleeding (45%), followed by lower abdominal pain (20%) and dysmenorrhea (15%). Other symptoms included infertility (8%), urinary symptoms (5%), and pelvic pressure symptoms (4%), while 3% of cases were asymptomatic. (Table 4)

**Table 4: Clinical Presentation of Women with Uterine Fibroids**

Symptom	Number	Percentage
Heavy menstrual bleeding	81	40%
Lower abdominal pain	36	22%
Dysmenorrhea	27	15%
Infertility	14	10%
Urinary symptoms	9	6%
Pelvic pressure symptoms	7	4%
Asymptomatic	6	3%

Based on location, intramural fibroids were the most common type (55%), followed by subserosal fibroids (30%), while submucosal fibroids accounted for 15% of the cases. (Table 5)

**Table 5: Types of Uterine Fibroids Based on Location**

Type of Fibroid	Number	Percentage
Intramural	99	55%
Subserosal	54	30%
Submucosal	27	15%

Most fibroids measured 3–5 cm in size (40%), followed by 5–8 cm (25%) and <3 cm (20%), while 15% of fibroids were larger than 8 cm. (Table 6)

**Table 6: Size Distribution of Uterine Fibroids**

Size of Fibroid	Number	Percentage
<3 cm	36	20%
3–5 cm	72	40%
5–8 cm	45	25%
>8 cm	27	15%

The most common complication associated with uterine fibroids was anemia due to heavy menstrual bleeding (35%). Other complications included infertility (10%), recurrent urinary tract infections (8%), recurrent pregnancy loss (5%), fibroid degeneration (6%), torsion (3%), and infection (2%). However, 31% of women had no complications. (Table 7)

**Table 7: Complications Associated with Uterine Fibroids**

Complication	Number	Percentage
Anemia due to heavy menstrual bleeding	63	35%
Infertility	18	10%
Recurrent pregnancy loss	9	5%
Recurrent uti	14	8%
Fibroid degeneration	11	6 %
Fibroid torsion	5	3 %
Fibroid infection	4	2 %
No complications	56	31%

## DISCUSSION:

Uterine fibroids are among the most common benign tumors affecting women of reproductive age and represent a major cause of gynecological morbidity worldwide. The present study evaluated the prevalence, clinical presentation, and characteristics of uterine fibroids among women attending the gynecology outpatient department of a tertiary care hospital.

### Prevalence of Uterine Fibroids

In the present study, uterine fibroids were diagnosed in 180 out of 1000 women, giving a prevalence of 18% among women attending the gynecology outpatient department. This finding is consistent with several epidemiological studies that report fibroid prevalence ranging between 20–40% among women of reproductive age. The slightly lower prevalence observed in the present study may be attributed to differences in population characteristics, diagnostic methods, and healthcare-seeking behavior of women attending outpatient clinics.<sup>15</sup>

Previous studies have also reported comparable prevalence rates in hospital-based populations. Stewart et al. reported that uterine fibroids are detected in a significant proportion of women during routine gynecological evaluation, particularly in women in their reproductive years.<sup>16</sup> Similarly, Pavone et al. emphasized that the prevalence of uterine fibroids varies widely depending on age, ethnicity, and diagnostic modalities used.<sup>17</sup>

### Age Distribution

In the present study, the majority of women with uterine fibroids were in the 31–40 years age group (44%), followed by 41–50 years (38%), while 18% were aged 20–30 years. These findings indicate that uterine fibroids occur more commonly during the late reproductive age group.

Similar age patterns have been reported in several studies. Baird et al. demonstrated that the incidence of uterine fibroids increases with age and reaches its peak during the fourth and fifth decades of life.<sup>18</sup> This pattern may be attributed to prolonged exposure to ovarian steroid hormones such as estrogen and progesterone, which are known to promote fibroid growth. Giuliani et al. also reported that the prevalence of fibroids increases progressively with age until menopause.<sup>19</sup>

### Parity Distribution

The present study showed that multiparous women constituted 75% of cases, while 25% were nulliparous. This suggests a higher occurrence of fibroids among multiparous women in this study population.

However, previous studies have reported varying results regarding the association between parity and fibroid occurrence. Some studies suggest that nulliparity is associated with an increased risk of fibroids, possibly due to prolonged exposure to estrogen without the hormonal changes associated with pregnancy.<sup>20</sup> Differences in study design, population characteristics, and sample size may explain the variation in findings between studies.

### **Clinical Presentation**

Heavy menstrual bleeding was the most common presenting symptom (40%) in the present study, followed by lower abdominal pain (22%) and dysmenorrhea (15%). Other symptoms included infertility (10%), urinary symptoms (6%), and pelvic pressure symptoms (4%), while 3% of women were asymptomatic.

Heavy menstrual bleeding is widely recognized as the most common symptom associated with uterine fibroids. Gupta et al. reported that abnormal uterine bleeding is the most frequent clinical manifestation of fibroids and may lead to iron deficiency anemia in many patients.<sup>21</sup> Similarly, Donnez and Dolmans highlighted that fibroid-related menorrhagia significantly affects quality of life and often prompts women to seek medical attention.<sup>22</sup>

The presence of infertility in some patients may be explained by the distortion of the uterine cavity or interference with implantation caused by fibroids, particularly submucosal lesions.

### **Types of Fibroids**

Based on location, intramural fibroids were the most common type (55%), followed by subserosal fibroids (30%), while submucosal fibroids accounted for 15% of cases in the present study.

These findings are consistent with several previous studies. De La Cruz and Buchanan reported that intramural fibroids are the most frequently encountered type because they originate within the muscular wall of the uterus.<sup>23</sup> Intramural fibroids often contribute to abnormal uterine bleeding and enlargement of the uterus, whereas submucosal fibroids are more commonly associated with infertility and heavy menstrual bleeding.

### **Size Distribution of Fibroids**

In the present study, 40% of fibroids measured 3–5 cm, followed by 25% measuring 5–8 cm, 20% measuring less than 3 cm, and 15% larger than 8 cm.

These findings suggest that most fibroids are detected at a moderate size during clinical evaluation. Early detection is possible due to the widespread use of ultrasonography in gynecological practice. Laughlin-Tommaso noted that imaging techniques such as pelvic ultrasonography allow early detection of fibroids even before they become symptomatic.<sup>24</sup>

### **Complications Associated with Fibroids**

The most common complication observed in the present study was anemia due to heavy menstrual bleeding (35%), followed by infertility (10%), recurrent urinary tract infections (8%), fibroid degeneration (6%), recurrent pregnancy loss (5%), fibroid torsion (3%), and fibroid infection (2%). However, 31% of women had no complications.

Anemia resulting from heavy menstrual bleeding is one of the most common complications associated with uterine fibroids. Chronic blood loss can lead to iron deficiency anemia and significantly affect the overall health and quality of life of affected women. Stewart et al. reported that fibroids are a leading cause of abnormal uterine bleeding and represent one of the most common indications for hysterectomy worldwide.<sup>25</sup>

In addition, large fibroids may produce pressure symptoms on adjacent organs such as the bladder or rectum, resulting in urinary frequency, constipation, or pelvic discomfort.

### **CONCLUSION:**

The present study demonstrated that uterine fibroids are relatively common among women attending the gynecology outpatient department, with a prevalence of 18%. The majority of cases occurred in women aged 31–40 years, indicating a higher occurrence during the late reproductive age group. Heavy menstrual bleeding was the most common presenting symptom, followed by lower abdominal pain and dysmenorrhea.

Intramural fibroids were the most frequently observed type, and most fibroids measured 3–5 cm in size. The most common complication associated with fibroids was anemia due to heavy menstrual bleeding.

These findings highlight the importance of early diagnosis through clinical evaluation and ultrasonography, as well as appropriate management to prevent complications and improve the quality of life of affected women.

## REFERENCES:

1. Bulun SE. Uterine fibroids. *N Engl J Med.* 2013;369(14):1344-55.
2. Stewart EA, Laughlin-Tommaso SK, Catherino WH, Lalitkumar S, Gupta D, Vollenhoven B. Uterine fibroids. *Nat Rev Dis Primers.* 2016;2:16043.
3. Pavone D, Clemenza S, Sorbi F, Fambrini M, Petraglia F. Epidemiology and risk factors of uterine fibroids. *Best Pract Res Clin Obstet Gynaecol.* 2018;46:3-11.
4. Baird DD, Dunson DB, Hill MC, Cousins D, Schectman JM. High cumulative incidence of uterine leiomyoma in women. *Am J Obstet Gynecol.* 2003;188(1):100-7.
5. Giuliani E, As-Sanie S, Marsh EE. Epidemiology and management of uterine fibroids. *Int J Gynaecol Obstet.* 2020;149(1):3-9.
6. Stewart EA, Cookson CL, Gandolfo RA, Schulze-Rath R. Epidemiology of uterine fibroids. *BJOG.* 2017;124(10):1501-12.
7. Moroni RM, Vieira CS, Ferriani RA, Reis RM, Nogueira AA, Brito LG. Presentation and treatment of uterine leiomyoma. *Biomed Res Int.* 2015;2015:617068.
8. Islam MS, Protic O, Giannubilo SR, Toti P, Tranquilli AL, Petraglia F, et al. Uterine leiomyoma molecular mechanisms. *J Clin Endocrinol Metab.* 2013;98(3):921-34.
9. Gupta S, Jose J, Manyonda I. Clinical presentation of fibroids. *Best Pract Res Clin Obstet Gynaecol.* 2008;22(4):615-26.
10. Donnez J, Dolmans MM. Uterine fibroid management: present and future. *Hum Reprod Update.* 2016;22(6):665-86.
11. Laughlin-Tommaso SK. Non-surgical management of uterine fibroids. *Obstet Gynecol Clin North Am.* 2016;43(1):97-113.
12. De La Cruz MS, Buchanan EM. Uterine fibroids: diagnosis and treatment. *Am Fam Physician.* 2017;95(2):100-7.
13. Stewart EA, Nicholson WK, Bradley L, Borah BJ. The burden of uterine fibroids. *Am J Obstet Gynecol.* 2013;209(4):319-26.
14. Dolmans MM, Donnez J. Uterine fibroid management. *Lancet.* 2022;399(10332):2053-66.
15. Stewart EA. Uterine fibroids. *Lancet.* 2001;357(9252):293-298.
16. Stewart EA, Nicholson WK, Bradley L, Borah BJ. The burden of uterine fibroids for women in the United States. *Am J Obstet Gynecol.* 2013;209(4):319-326.
17. Pavone D, Clemenza S, Sorbi F, Fambrini M, Petraglia F. Epidemiology and risk factors of uterine fibroids. *Best Pract Res Clin Obstet Gynaecol.* 2018;46:3-11.
18. Baird DD, Dunson DB, Hill MC, Cousins D, Schectman JM. High cumulative incidence of uterine leiomyoma in black and white women. *Am J Obstet Gynecol.* 2003;188(1):100-107.
19. Giuliani E, As-Sanie S, Marsh EE. Epidemiology and management of uterine fibroids. *Int J Gynaecol Obstet.* 2020;149(1):3-9.
20. Moroni RM, Vieira CS, Ferriani RA, Reis RM, Nogueira AA, Brito LG. Presentation and treatment of uterine leiomyoma in adolescence. *Biomed Res Int.* 2015;2015:617068.
21. Gupta S, Jose J, Manyonda I. Clinical presentation of fibroids. *Best Pract Res Clin Obstet Gynaecol.* 2008;22(4):615-626.
22. Donnez J, Dolmans MM. Uterine fibroid management: from the present to the future. *Hum Reprod Update.* 2016;22(6):665-686.
23. De La Cruz MS, Buchanan EM. Uterine fibroids: diagnosis and treatment. *Am Fam Physician.* 2017;95(2):100-107.
24. Laughlin-Tommaso SK. Non-surgical management of uterine fibroids. *Obstet Gynecol Clin North Am.* 2016;43(1):97-113.
25. Stewart EA, Cookson CL, Gandolfo RA, Schulze-Rath R. Epidemiology of uterine fibroids: a systematic review. *BJOG.* 2017;124(10):1501-1512.