ISSN: 2091-2749 (Print)
2091-2757 (Online)

Submitted on: 28 Nov 2025
Accepted on: 23 Dec 2025

https://doi.org/10.3126/jpahs.v12i2.88957

Clinical presentation of women with fibroid uterus admitted for surgical management at a tertiary care teaching hospital

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Abstract

Introduction: Uterine fibroids are common benign tumors causing menstrual disturbances, pelvic pain, and infertility. Although many women require surgical management, data on their clinical presentation and treatment patterns in Nepal are limited. This study aimed to assess the clinical presentation, fibroid characteristics, and surgical management of women admitted with fibroid uterus at a tertiary care teaching hospital.

Method: This retrospective observational study was conducted in the Department of Obstetrics and Gynaecology, Patan Hospital, Patan Academy of Health Sciences, from Jul 2022 to Jun 2025, after ethical approval. All surgically managed cases of fibroid uterus were included, and data on demographics, clinical presentation, fibroid characteristics, and surgical procedures were analyzed using descriptive statistics.

Result: A total of 218 patients were included, most were aged 41–50 years (59.63%) and multiparous (71.56%). Menorrhagia (37.61%) was the most common symptom, followed by lower abdominal pain (25.69%) and mixed complaints (20.64%). Intramural fibroids were predominant (61.47%), with single fibroids in 55.05% of cases. Fibroid sizes were commonly 12–14 weeks (18.35%) and 16–18 weeks (17.89%). Total abdominal hysterectomy with bilateral salpingo-oophorectomy was the main surgical procedure (65.14%), followed by myomectomy (10.55%).

Conclusion: Uterine fibroids were most common in women aged 41–50 years, with menorrhagia as the main symptom. Intramural fibroids of 12–18 weeks were most common, with hysterectomy as the primary treatment and myomectomy selectively performed for fertility preservation, emphasizing the need for timely evaluation and individualized management.

Keywords: Fibroid uterus; Hysterectomy; Intramural fibroids; Menorrhagia; Myomectomy

How to Cite: Shrestha SD, Maharjan A, Timalsina G. Clinical presentation of women with fibroid uterus admitted for surgical management at a tertiary care teaching hospital. J Patan Acad Health Sci. 2025 Dec;12(2):27-31.

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Introduction

Uterine fibroids (leiomyomas) are the most common benign gynecologic tumors, affecting nearly 70–80% of women by the age of 50, particularly during the reproductive years.[1] Many women remain asymptomatic; however, a significant number may present with menorrhagia, dysmenorrhea, pelvic pain, abdominal mass, pressure symptoms, infertility, or recurrent pregnancy loss.[2,3] These symptoms may impair quality of life and often require surgery when medical therapy fails. Myomectomy is generally preferred for women who desire future fertility, whereas hysterectomy remains the definitive treatment for those who have completed childbearing.[2]

Uterine fibroids are a major cause of gynecological admissions and surgeries in Nepal, but patients often present late due to its asymptomatic nature and limited awareness and healthcare access.[4] Studies from South Asia and Africa indicate that menorrhagia, pelvic pain, and abdominal mass are among the most frequent presenting symptoms, with intramural fibroids being the predominant type.[1,2,3,5] Hysterectomy is reported as the most commonly performed surgery in many tertiary centers, although variations exist depending on patient characteristics and institutional practices.[1,2,5]

Despite the high burden of uterine fibroids, institution-specific data from Nepal remain limited. Patan Hospital, major tertiary care teaching center, manages a significant number of fibroid cases requiring surgical intervention, yet no recent study has systematically reviewed the clinical presentation, fibroid characteristics, surgical indications and procedures in this setting. This lack of localized evidence limits effective patient counseling and management planning. Therefore, this study aims to fill this gap by analyzing the clinical presentation and surgical management of women admitted with fibroid uterus at Patan Hospital.

Method

This retrospective observational study was conducted in the Department of Obstetrics and Gynaecology at Patan Hospital, a tertiary care teaching hospital of the Patan Academy of Health Sciences, Lagankhel, Lalitpur, Nepal, using medical records from July 2022 to June 2025. Ethical approval was obtained from the Institutional Review Committee (IRC) of Patan Academy of Health Sciences (PAHS) (Ref: drs2508292091). All women admitted with a diagnosis of fibroid uterus who underwent surgical management during the study period were included. Pregnant women with fibroid uterus, those managed conservatively, those with coexisting endometriosis or malignancy of the female genital tract, and those with incomplete or missing medical records were excluded.

A fibroid uterus was defined as the presence of one or more benign smooth muscle tumors in the uterus, confirmed by imaging (ultrasound or MRI) or intraoperative findings. Medical records of eligible patients were retrieved from the hospital medical record section, and data were collected using a structured proforma. Variables recorded included demographic characteristics (age and parity), clinical presentations (menorrhagia, irregular menses, dysmenorrhea, lower abdominal pain, abdominal mass, pressure symptoms, infertility, recurrent pregnancy loss, vaginal discharge, or mixed symptoms). Each patient was categorized under a single primary clinical presentation; those with two or more concurrent symptoms were classified under "mixed symptoms." Fibroids were classified according to their anatomical location as submucosal, intramural, subserosal, cervical, or mixed. Mixed fibroids included combinations of intramural and subserosal, intramural and submucosal, intramural and cervical, submucosal and subserosal, and involvement of all three locations (intramural, submucosal, and subserosal). The number of fibroids, size of fibroids expressed as gestational age–equivalent in weeks, and the type of surgical procedure performed (myomectomy or hysterectomy via abdominal, vaginal, or laparoscopic approach) were also recorded.

Collected data were entered into Microsoft Excel 2013 and analyzed. Descriptive statistics, including frequency and percentage, were used to summarize demographic characteristics, clinical presentations, and fibroid-related variables (type, number, size, and surgical procedure).

Result

A total of 218 patients with fibroid uterus admitted for surgical management were included. The majority of patients were aged 41–50 years 130(59.63%), followed by 31–40 years 57(26.15%), and >50 years 23(10.55%) No patient was under 20 years of age. Most of the patients were multiparous 156(71.6%), followed by primiparous 54(24.77%) and nulliparous eight (3.67%), Table 1.

Table 1. Age and parity distribution of patients (N=218)

Variables		n (%)
Age (years)	<20	-
	21-30	8(3.67)
	31-40	57(26.15)
	41-50	130(59.63)
	>50	23(10.55)
Parity	Nulliparous	8(3.67)
	Primiparous	54(24.77)
	Multiparous	156(71.56)

Among the 218 patients, the most common clinical presentation was menorrhagia 82(37.61%), followed by lower abdominal pain 56(25.69%). Patients presenting with two or more symptoms without a single predominant complaint were categorized as having mixed symptoms 45(20.64%), Table 2. Other presentations included mass per abdomen, dysmenorrhea, irregular menses, urinary symptoms, secondary infertility, and vaginal discharge. No patient presented with bowel symptoms or primary infertility

Table 2. Clinical presentation of fibroid uterus (N=218)

Clinical Presentation	n (%)
Menorrhagia	82 (37.61)
Irregular menses	6 (2.75)
Dysmenorrhoea	7 (3.21)
Lower abdominal pain	56 (25.69)
Mass per abdomen	14 (6.42)
Urinary symptoms	4 (1.83)
Bowel symptoms	-
Primary infertility	-
Secondary infertility	2 (0.92)
Vaginal discharge	2 (0.92)
Mixed symptoms	45 (20.64)

Out of 218 patients, intramural fibroids were the most common 134(61.47%), followed by submucosal 29(13.3%), subserosal 13(5.96%), cervical three (1.38%), and mixed types 39(17.89%). Single fibroids were present in 120(55.05%) patients, while multiple fibroids were seen in 98(44.95%). Fibroid size ranged from 8–10 weeks in 34(15.60%) patients to >20 weeks in 21(9.63%) patients, with 12–14 weeks 40(18.35%) and 16–18 weeks 39(17.89%) being the most frequent sizes, Table 3.

Table 3. Fibroid characteristics (N=218)

Characteristics		n (%)
Type	Submucosal	29(13.30)
	Intramural	134(61.47)
	Subserosal	13(5.96)
	Mixed (intramural + subserosal)	21(9.63)
	Mixed (intramural + submucosal)	8(3.67)
	Mixed (intramural + cervical)	4(1.83)
	Mixed (Submucosal + subserosal)	2(0.92)
	Mixed (intramural + submucosal + subserosal)	4(1.83)
	Cervical	3(1.38)
Number	Single	120(55.05)
	Multiple	98(44.95)
Size	8-10 weeks	34(15.60)
	10-12 weeks	35(16.06)
	12-14 weeks	40(18.35)
	14-16 weeks	28(12.84)
	16-18 weeks	39(17.89)
	18-20 weeks	21(9.63)
	>20 weeks	21(9.63)

Regarding surgical management of fibroid uterus, Total Abdominal Hysterectomy (TAH) with bilateral salpingo-oophorectomy (BSO) was the most frequently performed procedure 142(65.14%). Myomectomy and TAH with unilateral salpingo-oophorectomy were each performed in 23(10.55%) patients, while TAH with bilateral salpingectomy was done in 22(10.09%). Total Laparoscopic Hysterectomy (TLH) with bilateral salpingo-oophorectomy (BSO) was performed in six (2.75%), and both TAH alone and TLH with bilateral salpingectomy were performed in only one (0.46%) patient each, Table 4.

Table 4. Surgical management of fibroid uterus (N=218)

Surgical procedure	n (%)
Myomectomy	23(10.55)
Total abdominal hysterectomy (TAH)	1(0.46)
TAH with bilateral salpingo-oophorectomy	142(65.14)
TAH with unilateral salpingo-oophorectomy	23(10.55)
TAH with bilateral salpingectomy	22(10.09)
Total laparoscopic hysterectomy (TLH) with bilateral salpingo-oophorectomy	6(2.75)
TLH with bilateral salpingectomy	1(0.46)

Discussion

Uterine fibroids (leiomyomas) are the most common benign gynecologic tumors, affecting nearly 70–80% of women by the age of 50, particularly during the reproductive years.[1] In this study, the largest proportion of women diagnosed with uterine fibroids belonged to the 41–50-year age group, aligning with evidence that fibroid incidence peaks during the late reproductive and perimenopausal period.[1,4,6-9] Similar age patterns have been reported in studies from Nepal, India, and other low- and middle-income countries[2,10,11], likely reflecting hormonal influences and delayed healthcare-seeking in this age group.

In this study, the majority of patients were multiparous. Although uterine fibroids are commonly reported to be more prevalent among nulliparous women, this observation likely reflects the reproductive patterns of the study population rather than a true protective effect of multiparity. In Nepal and similar low- and middle-income settings, early marriage and higher parity are common, which increases the likelihood that women presenting with symptomatic fibroids are multiparous. Furthermore, fibroids are hormonally responsive and often become clinically significant in the later reproductive years, by which time many women have already completed childbearing. Comparable findings have been reported in studies from Nepal, India, and several African countries.[4,5,6,8] Variations observed in populations with a higher proportion of nulliparous women[12,13] may therefore be explained by differences in sociocultural factors,

demographic profiles, and healthcare-seeking behavior rather than a biological inconsistency.

Menorrhagia was the most common presenting symptom, followed by lower abdominal pain and mixed symptoms, consistent with earlier studies reporting menstrual disturbances and pelvic pain as the predominant clinical manifestations of uterine fibroids.[1-3,5,10,14-18] Mixed symptoms also constituted a notable proportion of cases, reflecting the overlapping nature of fibroid-related complaints.[8,9,14] Pressure effects such as urinary symptoms were less frequent, similar to findings from other South Asian studies.[1,12]

Intramural fibroids were the most common, consistent with studies from Nepal, Uganda, India and Sudan where intramural fibroid constitute the majority of cases.[4,6,7,10-13] Submucosal and subserosal fibroids were less frequent, while mixed types contributed a notable proportion, similar to variability reported in international studies.[8,10,11] Most patients had single fibroids, although multiple fibroids were also common, comparable to patterns reported in regional and international studies.[2,3,12,16] Fibroid size varied at presentation , with most measuring 12–18 weeks, consistent with previous reported studies that women often seek care only after the fibroids have grown substantially.[6,12,14,16,17]

Surgical management in this study was predominantly total abdominal hysterectomy (TAH) with bilateral salpingo-oophorectomy, followed by myomectomy and other hysterectomy variants. This aligns with reports from Nepal and other countries, where hysterectomy remains the treatment of choice for symptomatic fibroids, especially in women who have completed childbearing or have large or multiple fibroids.[2,3,12,13,19] Myomectomy was performed less frequently, reflecting its selective use as a fertility-preserving procedure for younger women or those desiring future pregnancies.[1,20]

This single-center retrospective study may limit generalizability, and detailed clinical and long-term outcome data were unavailable. Timely evaluation and individualized management based on symptoms, reproductive goals, and fibroid characteristics are essential. Expanding fertility-preserving options and conducting multicenter prospective studies with long-term follow-up can improve patient care.

Conclusion

Uterine fibroids were most commonly present among multiparous women aged 41–50 years, with menorrhagia as the most frequent presenting complaint. Hysterectomy was the predominant surgical intervention, while myomectomy was performed selectively for women with fertility preservations. Intramural fibroids measuring 12–18 weeks were the most common type observed. Most patients were multiparous, reflecting the reproductive patterns of the study population. Surgical decisions were guided primarily by symptom severity, fibroid size, and reproductive intentions.

Acknowledgement

None

Conflict of Interest

None

Funding

None

Author Contribution

Concept, design, planning: SDS; Literature review: SDS; Data collection: SDS, AM, GT; Data analysis: SDS, AM; Draft manuscript: SDS; Revision of draft: SDS; Final manuscript: SDS; Accountability of the work: SDS, AM,GT; Guarantor: SDS.

References

1. Kumari GCL, Anusha T. A clinical study on fibroids. J Clin Community Pract. 2025;11(5):228-31. Weblink
2. Bano S, Aslam I, Azhar T, Manzoor U, Shahzad U, Mustafa K. Fibroid uterus: Clinical presentation and surgical management in a tertiary care hospital. Prof Med J. 2021;28(1):96–100. DOI
3. Akhter M, Salam A, Anwar K, Alam M, Shoma AK, Salim M. Clinical profile and management option of fibroid uterus patient. Chattagram Maa-O-Shishu Hosp Med Coll J. 2015;14(2):48–51. DOI
4. Pathak R, Khadka A, Maharjan B, Shrestha M. Evaluation of leiomyoma: a clinicopathological study in a tertiary care center in Kathmandu. Nepal Med Coll J. 2024;26(3):241-6. DOI
5. Ekine AA, Lawani LO, Iyoke CA, Jeremiah I, Ibrahim IA. Review of the clinical presentation of uterine fibroid and the effect of therapeutic intervention on fertility. Am J Clin Med Res. 2015;3(1):9-13. Weblink
6. Munusamy MM, Sheelaa WG, Lakshmi VP. Clinical presentation and prevalence of uterine fibroids: a 3-year study in 3-decade rural South Indian women. Int J Reprod Contracept Obstet Gynecol. 2017 Dec;6(12):5596-601. DOI
7. Srilatha J, Malathi V. Prevalence of fibroids: a study in a semiurban area in Telangana, India. Int J Reprod Contracept Obstet Gynecol. 2017 Dec;6(12):5247-50. DOI
8. Edzie EKM, Dzefi-Tettey K, Brakohiapa EK, Abdulai AB, Kekessie KK, Aidoo E, et al. Assessment of the clinical presentations and ultrasonographic features of uterine fibroids in adult Africans: a retrospective study. Oman Med J. 2023;38(1):e459. DOI
9. Koohara Y, Bala M, Mehmood M, Bushra, Asif B, Tasneem B, et al. Uterine fibroids: spectrum of presentation and its impact on women's health. J Pharm Res Int. 2022;34(36B):48-55. Weblink
10. Adawe M, Sezalio M, Kanyesigye H, Kajabwangu R, Okello S, Bajunirwe F, et al. Prevalence, clinical presentation and factors associated with uterine

fibroids among women attending the gynecology outpatient department at a large referral hospital in southwestern Uganda. East Afr Sci J. 2022;4(1):48-53. DOI
11. Abdelmtalab MAA, Tahir O, Hussein K, Badawi K. Anatomical locations of uterine fibroids in Sudanese women. Anat J Afr. 2020;9(1):1701-6. DOI
12. Isah AD, Adewole N, Agida ET, Omonua KI. A five-year survey of uterine fibroids at a Nigerian tertiary hospital. Open J Obstet Gynecol. 2018;8:468-76. Full Text
13. Madunatu CM, Okoro CC, Onyejiaka CC, Enechukwu CI, Ofojebe CJ, Ani VC, et al. A 5-year retrospective review of the presentation pattern and management outcomes of uterine fibroids in a Nigerian tertiary hospital. Int J Clin ObstetGynaecol. 2024;8(1):15-9. DOI
14. Ara I, Sultana F, Najnin R, Afreen S, Tuhin TB. Evaluating the epidemiological insights, etiology, and clinical manifestations of uterine fibroids. Sch Int J Obstet Gynecol. 2024;7(1):1-6. DOI
15. Dakhil A, Abuagela M, Dakhil AA, Elarbi W, Elansari A. Evaluation of uterine fibroids among women in Tripoli. Razi Med J. 2025; May 9:29-33. DOI
16. Nayak JC, Prajapati VP, Desai KS, Jadav HR, Chaudhary SM, Pensi CA. Uterine leiomyoma: clinical profile at Civil Hospital, Ahmedabad. Natl J Integr Res Med. 2012;3(4):50-3. Weblink
17. Das R, Jafrin R, Biswas B, Nahar N, Biswas RS. Clinical presentation & operative treatment of leiomyoma of uterus and its outcome. Chattagram Maa-O-Shishu Hosp Med Coll J. 2014 Nov 30;13(2):36-41. DOI
18. Nonye-Enyidah EI, Esiogu LF, Esiogu BC, Amadi SC, Gogo MA. Prevalence, clinical presentation and management options of uterine fibroids in a Nigerian tertiary institution. Int J Res Rep Gynaecol. 2025;8(1):18-26. Weblink
19. Shrestha S, Joshi R, Tamrakar R, Sharma B. Study on clinical profile of patients undergoing abdominal hysterectomy and their clinico-pathological correlation. J Chitwan Med Coll. 2019;9(28):65-71. Weblink
20. Gavli M, Patel HR, Anand N, Patel RR. A retrospective study on sociodemographic and clinical profile of patients underwent for myomectomy. Int J Health Sci Res. 2015;5(2):106-10. Weblink