**European Journal of Molecular & Clinical Medicine**
**ISSN2515-8260 Volume 10, Issue 01, 2023**

*Original Research Article*

# Surgical management of uterine fibroids in perimenopausal age: Tertiary care centre experience

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## Abstract:

**Introduction:** Uterine fibroids are the most common benign tumours of the female reproductive tract and have impact on quality of life in women with multiple & severe symptoms and affect the daily activities. Woman with abnormal uterine bleeding related to fibroids can persist during the perimenopausal age and after the menopause. It has been estimated that about half of all hysterectomies in industrialized countries today are for the treatment of symptomatic fibroids. **Methods:** This was a prospective hospital based observational study. **Inclusion criteria:** 1. Women beyond 45 years of age.2.Symptomatic women with uterine fibroids. **Exclusion criteria:** 1.Women with medical problems such as Diabetes, hypertension, thyroid dysfunction, heart disease2.Women with genital tract malignancy.3.Coagulative disorders. The main outcome measures were socio-demographic data, clinical features, histopathological findings, type of hysterectomy and postoperative follow up. **Results:** In the present study Out of 200 women with fibroid uterus presenting to gynaecology department 155(77.5 %) were multiparous. The mean age was 46 years. Themost common presenting complaint was heavy menstrual bleeding in 128(64%), abdominal mass 72 (36%) pain abdomen 67(33.5%) women followed by frequent cycles 36(18%).Abdominal hysterectomy constitutes about 67%.Majority of the fibroids were intramural and submucosal fibroids. **Conclusion:** Women with fibroid uterus with severe symptoms like heavy menstrual bleeding, mass per abdomen with pressure symptoms require treatment, majority were presented to hospital late so they need surgical intervention like hysterectomy. Early screening, identification appropriate and relevant treatment with medical and minimal invasive surgeries will reduce morbidity and improve quality of life.

**Key words:** Uterine fibroid, Perimenopausal age, Heavy menstrual bleeding, abdominal mass, Hysterectomy.

## Introduction:

Uterine fibroids (leiomyomas) are the most common benign tumours of the female reproductive tract and have impact on quality of life in women with multiple & severe symptoms and affect the daily activities. The symptoms associated with leiomyomas vary with their size, number and

location, as well as with the concomitant degenerative changes [1-3]. Availability of various imaging non-invasive techniques like Ultrasonography, MRI and CT-scan diagnosis of uterine fibroids is confirmed after clinical examination. The age group with the highest incidence was 45–49 years (30%), followed by the age group 50–54years (25%). In the group aged 55–59 years there was still an incidence of almost 10%, and even the age group 60–80 years had an incidence of 1–2%.Many studies have highlighted that woman with abnormal uterine bleeding related to fibroids can persist during the perimenopausal phase and after the menopause[4-6].Even though availability of several modalities of treatment, most of them opting for hysterectomies. It has been estimated that about half of all hysterectomies in industrialized countries today are for the treatment of symptomatic fibroids. In India Abdominal hysterectomy continues to be preferred approach in 75-80% of hysterectomies because of limitations of minimal invasive surgeries[7].
The main objective of the present study was clinicopathological evaluation of fibroid uterus and its surgical management in perimenopausal women.

**Methods:** This was a prospective hospital based observational study. It was conducted in Mallareddy Narayana Multispecialty Hospital from January 2016- February 2020, Suraram, Hyderabad, India.

**Inclusion criteria:**

1. Women beyond 45 years of age
2. Symptomatic women with uterine fibroids.

**Exclusion criteria:**

1. Women with medical problems such as Diabetes, hypertension, thyroid dysfunction, heart disease
2. Women with genital tract malignancy.
3. Coagulative disorders

After fulfilling above criteria from selected patients, the relevant data such as age, parity, menstrual symptoms, and other associated findings in clinical examination were recorded. Detailed history was taken and thorough physical and clinical examination was done.Routine investigations like blood group and Rh-typing, complete blood count, random blood sugar, urine analysis, serology, Ultrasonography, pap smear and endometrial biopsy was done. In selected cases coagulation profile, renal function tests, liver function tests and MRI (fibroid mapping) were done. All study participants were needed surgical intervention i.e hysterectomy. The main outcome measures were socio-demographic data, clinical features, histopathological findings, type of hysterectomy and postoperative follow up.
Ethical approval was obtained from the Mallareddy medical college for women prior to the commencement of the study and written consent obtained from each participant before involvement in the study.

**Results:** In the present study Out of 200 women with fibroid uterus presenting to gynaecology department 155(77.5 %) were multiparous. Table-1 showing socio-demographic characteristics of the study participants. The mean age was 46 years.All study participants belonged to low socio-economic status. Clinical presentation of study subjects was showed in Table-2.Themost common presenting complaint was heavy menstrual bleeding in 128(64%),abdominal mass 72 (36%) pain abdomen 67(33.5%) women followed by frequent cycles 36(18%). Majority of the women(162) were anaemic, 34(17%) women needed blood transfusion before surgery and for remaining women 128(64%) improvement of haemoglobin iron infusion and haematinics were given. Table -3 showed size of the uterus by bimanual examination. Histopathological findings

were displayed in Table-4. The most common histopathological findings were proliferative phase 98(49%), followed by endometrial hyperplasia 54(27 %). Pre-operative ureteric stents placed in 7 cases for large fibroids to avoid injury to ureter while operating abdominal hysterectomy due to distorted uterine anatomy with multiple fibroids and removed post operatively after 3 weeks. Table-5 showed Type of Hysterectomy among study participants. Abdominal hysterectomy constitutes about 67%. Table-6 showed type of fibroids in hysterectomy specimen. Majority of the fibroids were intramural and submucosal fibroids. Following complications were observed intra operatively: Broad ligament Hematoma -1, Injury to bladder-3 and post-operatively women were followed up and following complications identified Superficial wound gape-15, Fever -12 and subacute intestinal obstruction -1 on 13$^{th}$ post operative day laparotomy was done.

**Table -1: showing Socio-Demographic characteristics**

| **Socio-Demographic characteristics** | **No of patients** | **Percentage (%)** |
|---|---|---|
| **Age(years)** | | |
| 45-50 | 162 | 81% |
| 51-55 | 38 | 19% |
| **BMI(kg/m$^2$)** | | |
| <24 | 38 | 19% |
| 24.1-28 | 142 | 71% |
| 28.1-30 | 20 | 10% |
| **Religion** | | |
| Hindus | 161 | 80.5% |
| Muslims | 28 | 14% |
| Christians | 11 | 5.5% |
| **Menarche (mean age)** | | |
| 12.46 years | | |
| **Parity** | | |
| Primiparous | 45 | 22.5% |
| Multiparous | 155 | 77.5% |
| **Educational status** | | |
| Illiterate | 67 | 33.5% |
| Primary school | 106 | 53% |
| Secondary school | 27 | 13.5% |

**Table-2: showing clinical features in study subjects.**

| **Clinical features** | **No of cases** | **Percentage** |
|---|---|---|
| Heavy menstrual bleeding | 128 | 64% |
| Abdominal mass | 72 | 36% |
| Pain in lower abdomen | 67 | 33.5% |
| Frequent menstrual cycles | 36 | 18% |
| Intermenstrual bleeding | 28 | 14% |
| Heavyness in lower abdomen | 26 | 13% |
| Retention of urine | 3 | 1.5% |

**Table-3 showing size of the uterus by bimanual examination**

| Size of the uterus | No of cases | % |
|---|---|---|
| <20wks | 129 | 64.5% |
| 20-24 wks | 52 | 26% |
| >24wks | 19 | 9.5% |

**Table-4 showing histopathology findings in study participants.**

| Histopathological pattern | No of cases | Percentage(%) |
|---|---|---|
| Proliferative phase | 98 | 49% |
| Endometrial hyperplasia | 54 | 27% |
| Secretory phase | 30 | 15% |
| Disordered proliferative phase | 9 | 4.5% |
| Cystic glandular hyperplasia | 5 | 2.5% |
| Irregular ripening | 2 | 1% |
| Shedding endometrium | 1 | 0.5% |
| Scanty material | 1 | 0.5% |

**Table-5 showing type of hysterectomy in study participants.**

| Type of Hysterectomy | No of cases | Percentage (%) |
|---|---|---|
| TAH | 134 | 67% |
| VH | 37 | 18.50% |
| LAVH | 29 | 14.5% |

TAH-Total abdominal hysterectomy, VH-Vaginal hysterectomy, LAVH-Laparoscopic vaginal hysterectomy

**Table -6 showing type of fibroids in cut section of the hysterectomy specimens.**

| Type of fibroid | No of cases | Percentage |
|---|---|---|
| submucosal and intramural (1-3) | 70 | 35% |
| Intramural ( 3-5) | 48 | 24% |
| Intramural and subserosal (3-6) | 32 | 16% |
| Intramural and subserosal (4-6) | 29 | 14.5% |
| submucosal, intramural and subserosal(3-7) | 17 | 8.5% |
| Intramural and subserosal (4-7) | 4 | 2% |

## Discussion:

Perimenopausal women are associated with significantly at higher risk of uterine fibroids. reflecting the role of female gonadal steroid hormones in stimulating uterine fibroid growth[8,9]Women with uterine fibroids seen in this study were perimenopausal age and were symptomatic. In this study mean age of the women was 46 comparable with Munusamy MM et al study[10]. Incidence of fibroid uterus was more in multiparous women in our study, similar to Bhat and Khyade RLstudy[11,12.]

Uterine fibroids especially with submucosal fibroids and intramural fibroids can cause abnormal uterine bleeding pattern, which may lead to anemia, quality of life, work performance, social activities and work capacity will be impaired. In our study heavy menstrual bleeding (64%),Abdominal mass (36%) followed by pain in lower abdomen (33.5%) were the main complaints. Many Authors have reported that heavy menstrual bleeding was the most common menstrual pattern with uterine fibroids especially with submucosal fibroid MunusamyMM(58.8%), Khyade RL.,(78%) Zimmermann A(59.8%)[10,12,13].

Evidence on medical treatments has been systematically analyzed in 2016 [14] in a total of 75 randomized controlled trials (RCT), concluding that their overall quality was very low and that there was insufficient evidence to recommend any medical treatment in the management of fibroids.

Recently, non-surgical therapies like Uterine artery embolization, Ulipristal acetate drug, GnRH agonists and High frequency magnetic resonance-guided focused ultrasound surgery (MRgFUS) for uterine fibroids have been proposed. But success rates, complications and side effects rates are widely variable[15]. These methods need close monitoring and follow-ups for longer duration, so patient and family members not accept for this reason.

Inspite of availability of various modalities of treatment women with symptomatic uterine fibroids who do not want to preserve fertility and do not respond to conservative treatment opting for hysterectomy because of recurrence of fibroids after conservative therapy. Selection of route of hysterectomy is influenced by location of fibroid, size and shape of uterus, presence of adhesions, extent of extra uterine disease, experience, surgeon training, anesthetic support and patient preference, they all affect decision regarding route of hysterectomy[15].

Globally the most common indication for hysterectomy is symptomatic uterine fibroid. Abdominal hysterectomy for benign uterine fibroids using laparotomy incision continues to be mainstay treatment in developing countries like India. In our study majority of women with symptomatic uterine fibroids (67%) underwent abdominal hysterectomy. Main drawbacks with Abdominal hysterectomy are visible abdominal scar, risk of wound infection, delayed post operative recovery and peritoneal and omental adhesions. Table 7: showing types of hysterectomy for benign uterine fibroids by different others. In their studies abdominal hysterectomy was most common type of hysterectomy for benign uterine fibroids,similar to our study. Modern operative technologies like laparoscopic, robotic and hysteroscopic minimal invasive surgeries will reduce operative morbidity, less post operative pain and early post operative recovery. But these technologies need expertise and skill. These are not readily available for many in developing countries.Vaginal and laparoscopic hysterectomies do not require large abdominal incision less postoperative morbidity and short hospital stay. Vaginal hysterectomy is most cost effective and better outcome.

**Table 7: showing types of hysterectomy for benign uterine fibroids by different others.**

| STUDIES | TAH | VH | LAVH |
|---|---|---|---|
| Deekshapandey and Kriti sehgal[16] | 74.7% | 17.8% | 6.6% |
| Bala R et al[17] | 40.7% | 10.7% | - |
| MuslinaAkhter et al [18] | 62% | 6% | - |
| Abiodunomole-ohonsi,Francis Belga[19] | 58.1% | - | - |
| Our study | 67% | 18.5% | 14.5% |

TAH-Total abdominal hysterectomy, VH-Vaginal hysterectomy, LAVH-Laparoscopic vaginal hysterectomy

## Conclusion:

In the present study women with fibroid uterus were perimenopausal age, mean age was 46 years. In our study majority of the women had abnormal menstrual pattern and presented with abdominal mass with more than one complaint. Majority of women in our study were multiparous. If fibroids are small and asymptomatic do not require treatment.But women with fibroid uterus with severe symptoms like heavy menstrual bleeding, mass per abdomen withpressure symptoms require treatment, majority were presented to hospital late so they need surgical intervention like hysterectomy. In our all study participants were belonged to low socio-economic status with poor knowledge about available health services. Early screening, identification appropriate and relevant treatment with medical and minimal invasive surgeries will reduce morbidity and improve quality of life.

Conflict of Interest: None

Funding Support:Nil

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