

# Clinicopathological Study on Uterine Fibroid in a Medical College Hospital.

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## ABSTRACT

**Background:** Uterine fibroid are the most common benign pelvic tumor in females. Its occurrence in reproductive age group makes it important. **Methods:** The present hospital based cross-sectional study was done to find the clinicopathological features of fibroid of uterus at a tertiary care center. Histopathological examination was done to observe the type and morphology of these lesions. **Results:** Uterine fibroids are commonly seen in females of <40 years age and present with menorrhagia (55.2%) and abdominal pain (27.1%). The most common location was intramural (63.5%) and the most common degeneration was hyaline change (12.5%). **Conclusion:** Routine histopathological examination of hysterectomy specimen is needed to rule out tumor or infective pathology.

**Keywords:** Histopathology, Profile, Uterine Fibroid.

## INTRODUCTION

Uterine leiomyoma or fibroid uterus is the most common benign tumor of female pelvis. Its incidence ranges from 5 to 20%.<sup>[1,2]</sup> These tumors appear after menarche, are common during reproductive period and have been found to regress after menopause.<sup>[3]</sup> They are oestrogen dependent and are concurrently seen with endometrial hyperplasia.<sup>[4]</sup> They are usually asymptomatic but may cause menstrual disorders like menorrhagia & dysmenorrhea, lower abdominal pain, feeling of pelvis mass and infertility.<sup>[5]</sup>

As this tumor is commonly seen during childbearing age, the conservative treatment or the surgery preserving childbearing is needed.<sup>[6]</sup> The secondary changes in uterine fibroid need adequate treatment. As very few studies have been done to note these changes, the present study was conducted.

### Aims & objectives

The present study was conducted to find the clinicopathological features of uterine fibroid seen in hysterectomy and myomectomy specimens.

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## MATERIALS AND METHODS

The present study was cross-sectional in nature conducted at the department of Pathology, VIMS, Pawapuri during April 2017 to March 2018. It included 96 patients suffering from admitted in the department of Gynaecology and operated for the uterine fibroid.

Detailed history was taken from all the patients, complete physical examination was done and patients underwent routine investigations as well as those needed for diagnosis of fibroid of uterus. During operation, the size of uterus, the number of fibroids and their location were noted. The excised uterine specimen was sent to the department of Pathology.

It was cut in the midline anteriorly to examine the inner portion of the uterus. The specimen was fixed in 10% Formalin for 24 to 48 hours and multiple sections were prepared. The tissue bits were taken from endometrium, cervix and myometrium including fibroid as well as from any area with abnormal pathology. Multiple sections of the thickness of 5 microns were cut and stained with hematoxylin and eosin. The degree of cellularity, cytological atypia, presence of secondary changes including necrosis, margins of the tumor and intravascular invasion were noted.

The data was recorded in pretested proforma and contained details of background of the patients, their clinical profile and findings of examination of

fibroid. It was entered in Microsoft Excel and analysed using SPSS v 16.0. All the records were kept confidentially.

## RESULTS

Majority of the respondents were in the age group of less than 40 years (43.8%). Only 15.7% were above 50 years.

**Table 1: Age distribution**

Age group	Frequency	%	95% CI
<40	42	43.8	34.3-53.7
41-50	39	40.6	31.3-50.6
51-60	11	11.5	6.5-19.4
>60	4	4.2	1.6-10.2
Total	96	100	

Menorrhagia was the most common complain (55.2%). 27.1% suffered from lower abdominal pain. Vaginal discharge and infertility was seen in 12.5% while dysuria and pelvic mass was complained of in 8.3%.

**Table 2: Presenting complains**

Presenting complains*	Frequency	%	95% CI
Menorrhagia	53	55.2	45.3-64.8
Pain abdomen	26	27.1	19.2-36.7
Pelvic mass	8	8.3	4.3-15.6
Vaginal discharge	12	12.5	7.3-20.6
Infertility	12	12.5	7.3-20.6
Dysuria	8	8.3	4.3-15.6

\*. Multiple response

Most of the females were multiparous (91.7%) while only 3.1% were nulliparous.

**Table 3: Parity of women**

Parity	Frequency	%	95% CI
Nulliparous	3	3.1	1.1-8.8
Primipara	5	5.2	2.2-11.6
Multipara	88	91.7	84.4-95.7
Total	96	100	-

About one-third (63.5%) of the fibroids were located intramurally. Subserosal fibroid was seen in 17.7% while adenomyosis was seen in 12.5%.

**Table 4: Location of fibroid**

Location of fibroid	Frequency	%	95% CI
Subserosal	17	17.7	11.4-26.5
Submucosal	6	6.3	2.2-11.6
Intramural	61	63.5	53.6-72.5
Adenomyosis	12	12.5	7.3-20.6
Total	96	100	-

Proliferative endometrium was present in 52.1%, hyperplasia in 22.9% and secretory changes were seen in 14.6%.

[Table 6] shows the secondary changes seen in fibroid which was present in 20.8%. 12.5% showed hyalinisation, 5.2% cystic changes and 2.1% myxoid change.

**Table 5: Histopathological pattern of endometrium**

Histopathological pattern	Frequency	%	95% CI
Proliferative	50	52.1	42.2-61.8
Secretory	14	14.6	8.9-23
Atrophic endometrium	7	7.3	3.6-14.3
Adenomyomatous polyp	3	3.1	1.1-8.8
Hyperplasia	22	22.9	15.6-32.3
Total	96	100	-

**Table 6: Secondary changes in uterine fibroid**

Secondary changes	Frequency	%	95% CI
Absent	76	79.2	70-86.1
Hyalinisation	12	12.5	7.3-20.6
Cystic change	5	5.2	2.2-11.6
Haemorrhage	1	1	0.2-5.7
Myxoid change	2	2.1	0.6-7.3
Total	96	100	-

## DISCUSSION

The present study assessing the clinicopathological profile of uterine fibroid cases included 96 patients. The most common age group was that of less than 40 years (43.8%). Only 15.7% were above 50 years. Gowri et al observed that 41.3% patients were in the age group of 31-40 years and 49% between 41-50 years.<sup>[7]</sup> Lahori et al also found that age of the patients with leiomyoma ranged from 18-62 years. The most common age group was 41-50 years accounting for 46.84% cases.<sup>[8]</sup> Jalandhara et al observed that majority of the patients (52%) were in 3rd decades of life and the mean age was 38.5 years.<sup>[9]</sup>

In this study, the most common complaint was menorrhagia (55.2%). 27.1% suffered from lower abdominal pain. Vaginal discharge and infertility was seen in 12.5% while dysuria and pelvic mass was complained of in 8.3%. Gowri et al observed that menorrhagia was the commonest clinical manifestation (49.03%) followed by pain abdomen (30.5%), dysmenorrhea (20.07%), and retention of urine (0.4%).<sup>[7]</sup> Lahori et al also had similar observation and he reported that menorrhagia was the commonest symptom constituting 37.97% cases, followed by pain in abdomen in 18.99% cases and dysmenorrhea in 17.72 cases.<sup>[8]</sup> Menorrhagia was the commonest symptom constituting 35.14% cases, mass in abdomen in 13.24% cases and vaginal discharge in 12.98% cases as found by Manjula et al.<sup>[10]</sup> Jalandhara et al observed that 76% cases had menstrual abnormalities and 15% had infertility.<sup>[9]</sup> Most of the females were multiparous (91.7%) in this study while only 3.1% were nulliparous. Similar observations were made by Gowri et al and Begum et al.<sup>[7,11]</sup>

About one-third (63.5%) of the fibroids were located intramurally. Subserosal fibroid was seen in 17.7% while adenomyosis was seen in 12.5%. Jalandhara et al commented that the most common site of

leiomyomas was intramural (60%) followed by subserosal leiomyomas (20%) while Lahori et al reported that intramural location was commonest (57.43%) followed by subserosal leiomyomas (30.69%), submucosal leiomyomas constituted 8.91% cases while broad ligament leiomyomas constituted 2.97% cases.<sup>[8,9]</sup>

In this study, proliferative endometrium was present in 52.1%, hyperplasia in 22.9% and secretory changes were seen in 14.6%. Jalandhara et al found that proliferative phase accounted for 66% possibly due to hyper-estrogenic status.<sup>[9]</sup>

The secondary changes in fibroid were present in 20.8% cases. 12.5% showed hyalinisation, 5.2% cystic changes and 2.1% myxoid change. Gowri et al noted secondary degenerative changes grossly in 5.7% of cases and microscopically in 22.6%. Hyalinisation was the commonly encountered secondary changes similar to this study.<sup>[7]</sup> Lahori et al found degenerative changes in 16.46% leiomyomas.<sup>[8]</sup>

## CONCLUSION

It is concluded that uterine fibroids are commonly seen in females of reproductive age group and present with menorrhagia and abdominal pain. The most common location was intramural, the most common degeneration was hyaline change and cellular variant was the most common subtype seen. Routine histopathology is must to rule out tumor or infective pathology, for confirmation of diagnosis and adequate management.

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