

ORIGINAL ARTICLE**Clinicopathological profile of patients with uterine fibroids**¹Nipun Sharma, ²Pallavi Sinha¹Assistant Professor, Department of Obstetrics & Gynaecology, Major S D Singh Medical College & Hospital, Farukhabad, Uttar Pradesh, India;²Assistant Professor, Department of Pathology, Major S D Singh Medical College & Hospital, Farukhabad, Uttar Pradesh, India**ABSTRACT:**

Background: The most prevalent neoplasm affecting women is uterine fibroids, which are estimated to impact over 70% of women by the time menopause begins. The present study was conducted to assess the histopathological profile of uterine fibroids. **Materials & Methods:** 55 females with uterine fibroids were removed and the surgical specimen was fixed for a period of 24 to 48 hours in 10% neutral buffered formalin. A gross examination of the uterus, cervix, and bilateral adnexae was performed. **Results:** The age group 21-25 years had 12, 26-30 years had 28, 31-35 years had 8 and 36-40 years had 7 patients. 36 patients had primigravida and 19 patients had multigravida. The common type of uterine fibroids was intramural in 11, subserosal in 16, submucosal in 24 patients and pedunculated in 4 cases. Endometrial changes were atrophic in 2, proliferative in 38, secretory in 12 and hyperplastic in 2 cases. Degenerations were none in 32, cystic in 7, red in 4, hyaline in 8 and myxoid in 3 cases. The difference was significant ($P < 0.05$). **Conclusion:** The most common pattern of endometrium observed was proliferative. Hyaline degeneration, myxoid degeneration and cystic degeneration are the common secondary changes seen in fibroid uterus.

Keywords: subserosal, Endometrial, Uterine fibroids

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INTRODUCTION

The most prevalent neoplasm affecting women is uterine fibroids, which are estimated to impact over 70% of women by the time menopause begins. About 25% of women of reproductive age are thought to experience symptoms severe enough to necessitate treatment, and 25% of these women are believed to have them clinically evident.¹ However, the condition's prevalence is probably understated because it often goes untreated in women. After all, symptoms appear gradually or without obvious signs.² The epidemiological statistics and evidence on related factors are biased to indicate severe disease because of the unknown amount and impact of undiscovered UFs. The risk of fibroids in pregnancy are usually evaluated based upon the trimester of assessment, on their total number, site, size, type of fibroid.³

Large fibroids are linked to consequences such as discomfort from a hemorrhagic infarction, nausea, vomiting, and pyrexia, which are noticed between weeks 20 and 22. Large submucosal or intramural fibroids have the potential to induce miscarriage. In addition to subfertility, women with fibroids may also have lower rates of implantation failure (0.821%) and pregnancy (0.849%). Submucosal fibroids are associated with higher relative risks of IR (0.2%), CPR (0.3%), and MR (1.6%).⁴ This is particularly evident in these patients. Fetopelvic disproportion, dysfunctional and obstructed labor, premature labor, and preterm birth are complications linked to uterine

fibroids. Breech presentation is the most frequent malpresentation linked to these pregnancies. Submucosal and retroplacental fibroids are more likely to experience these issues. There is a pattern of the uterine fibroid growing in size.^{5,6} The present study was conducted to assess the histopathological profile of uterine fibroids.

MATERIALS & METHODS

The present study was conducted on 55 females with uterine fibroids. All were informed regarding the study and their written consent was obtained.

Data such as name, age, parity, etc. were recorded. Patients underwent extensive investigation, and they were monitored both clinically and ultrasonographically until the delivery outcome was documented. Gravida, type, mode of delivery, and cesarean myomectomy were studied. The surgical specimen that had been removed was fixed for a period of 24 to 48 hours in 10% neutral buffered formalin. A gross examination of the uterus, cervix, and bilateral adnexae was performed. At least two parts were selected from each of the typical sites. These were embedded in paraffin after processing. Hematoxylin-eosin was used to prepare and stain the sections (H and E). A thorough histological analysis was performed to evaluate secondary changes, including glandular and stromal alterations. Data thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Age-wise distribution

Age group (Years)	Number	P value
21-25	12	0.01
26-30	28	
31-35	8	
36-40	7	

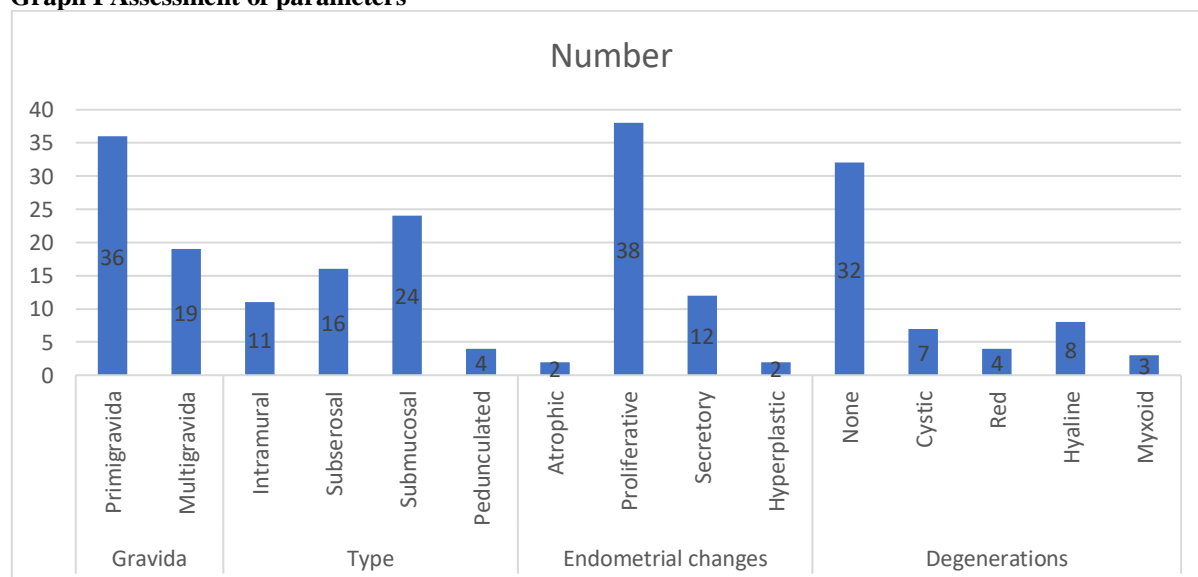
Table I shows that the age group 21-25 years had 12, 26-30 years had 28, 31-35 years had 8 and 36-40 years had 7 patients.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Gravida	Primigravida	36	0.05
	Multigravida	19	
Type	Intramural	11	0.05
	Subserosal	16	
	Submucosal	24	
	Pedunculated	4	
Endometrial changes	Atrophic	2	0.01
	Proliferative	38	
	Secretory	12	
	Hyperplastic	2	
Degenerations	None	32	0.02
	Cystic	7	
	Red	4	
	Hyaline	8	
	Myxoid	3	

Table II, graph I show that 36 patients had primigravida and 19 patients had multigravida. The common type of uterine fibroids was intramural in 11, subserosal in 16, submucosal in 24 patients and pedunculated in 4 cases. Endometrial changes were atrophic in 2, proliferative in 38, secretory in 12 and hyperplastic in 2 cases. Degenerations were none in 32, cystic in 7, red in 4, hyaline in 8 and myxoid in 3 cases. The difference was significant ($P < 0.05$).

Graph I Assessment of parameters



DISCUSSION

Women of reproductive age are affected by benign smooth muscle neoplasms of the uterus called uterine fibroids (UFs), also referred to as uterine leiomyomas.^{7,8} They might not induce any symptoms

at all or elicit a variety of severe, long-lasting ones. The most typical initial symptom is heavy menstrual bleeding, which can cause anemia, weariness, and uncomfortable periods.^{9,10} Additional symptoms of UF include non-cyclic pain, protuberance of the

abdomen, painful bowel movements or pelvic pressure, and bladder or bowel dysfunction leading to pain or constipation from urine retention or incontinence.¹¹ Abdominal pain resulting from pedunculated fibroids causing impaction or torsion is one of the most important complications. Myomectomy may be necessary in these situations in addition to analgesia; while it was formerly contraindicated during pregnancy, multiple case studies have shown that it is important for intractable and recurrent pain.^{12,13} However, this is indicated in cases of large fibroids (more than 5 cm) or lower segment (cervical) fibroids that cause irregular lying, and in such cases, a cesarean section should be performed at or about 38 weeks. In these situations, bleeding due to APH and PPH is not unusual.^{14,15} The present study was conducted to assess the histopathological profile of uterine fibroids.

We found that the age group 21-25 years had 12, 26-30 years had 28, 31-35 years had 8 and 36-40 years had 7 patients. 36 patients had primigravida and 19 patients had multigravida. Noor et al¹⁶ found that thirty patients were diagnosed to have fibroids during pregnancy out of 3468 deliveries, thus prevalence was 0.865% in our hospital. The age of 50% cases was from 20 to 30 years, and 30 to 35 Year (27%). Twenty-one (70%) belonged to low socioeconomic status. Ninety percent patients reached up to term pregnancy between 37 to 40 weeks. Fibroids were found less common in patients in their first pregnancy (8, 23.66%). Twenty-one (70%) patients were delivered by cesarean section, and in 1 (3.33%) patient hysterotomy was performed. Failure to progress and foetal distress was the commonest indication for cesarean section (8, 38.09%) followed by breech presentation (4, 19.04%), cord prolapse (3, 14.28%) and fibroids in the lower segment (2, 9.52%). Anaemia was the commonest complication (20, 66.66%) followed by postpartum hemorrhage (PPH) (10, 33.33%). The breech presentation was the most common malpresentation (4, 13.33%) associated with fibroids during pregnancy. Premature rupture of membranes and cord prolapse was seen in 3 (10%) patients each. Four (13.33%) patients underwent abdominal hysterectomy. Intrauterine growth restriction IUGR was seen in 2 patients (6.66%), 2 patients ended up with abortions, 1 patient had a spontaneous pregnancy loss and the other underwent hysterotomy due to low-lying placenta and heavy bleeding per vaginum. Compound presentation, neglected transverse lie, stuck head of breech, placenta increta, retained placenta, low-lying placenta, were the other complications occurring in one patient each. One patient died during anaesthesia. Neonatal outcomes were encouraging as 20 (67%) babies were of average birth weight and only 4 (13.33%) babies had low APGAR score and needed NICU admission. Perinatal mortality was 37/1000 live births.

We observed that the common type of uterine fibroids was intramural in 11, subserosal in 16, submucosal in

24 patients and pedunculated in 4 cases. Endometrial changes were atrophic in 2, proliferative in 38, secretory in 12 and hyperplastic in 2 cases. Degenerations were none in 32, cystic in 7, red in 4, hyaline in 8 and myxoid in 3 cases. Sarwar et al¹⁷ evaluated the maternal and foetal outcome in women having pregnancy with fibroids in uterus and the complications associated with fibroids during the pregnancy. Thirty patients were included in this study who had pregnancy with fibroid. Normal delivery was achieved in 14 (46.66%) patients. Eight (26.67%) patients had caesarean section and eight (26.67%) had miscarriages. Seven (23.33%) patients had no complications while 8 (26.67%) had miscarriages, 8 (26.67%) had postpartum haemorrhage, 10 (33.33%) had preterm delivery, and 3 patients had ante-partum haemorrhage. Two (10%) patients had premature rupture of membranes and 1 patient (3.33%) had pain abdomen and technical difficulty during caesarean section. There were 12 (40%) healthy babies. Five (16.67%) babies delivered with morbidity but recovered. There were 4 (13.33%) intrauterine deaths and one early neonatal death.

CONCLUSION

Authors found that the most common pattern of endometrium observed was proliferative. Hyaline degeneration, myxoid degeneration and cystic degeneration are the common secondary changes seen in fibroid uterus.

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