

Original Research

Clinicopathological analysis of women with uterine fibroids

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ABSTRACT:

Background: Uterine fibroids, the most common tumor in women, are thought to affect more than 70% of women by the time menopause starts. The present study was conducted to assess the histopathological profile of uterine fibroids. **Materials & Methods:** 78 women with uterine fibroids were selected. The excised surgical specimen was preserved in 10% neutral buffered formalin for 24 to 48 hours. The uterus, cervix, and bilateral adnexae were grossly examined. **Results:** The age group 21-25 years had 15, 26-30 years had 33, 31-35 years had 11 and 36-40 years had 9 patients. Endometrial changes were atrophic in 5, proliferative in 40, secretory in 25 and hyperplastic in 8 cases. Degenerations were none in 36, cystic in 12, red in 9, hyaline in 15 and myxoid in 6 cases. 46 patients had primigravida and 22 patients had multigravida. The common type of uterine fibroids was intramural in 15, subserosal in 20, submucosal in 29 patients and pedunculated in 14 cases. The difference was significant ($P < 0.05$). **Conclusion:** Proliferative endometrial pattern was the most frequently found. Common secondary changes observed in fibroid uteri include hyaline degeneration, myxoid degeneration, and cystic degeneration.

Keywords: Endometrial, myxoid degeneration, Uterine fibroids

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INTRODUCTION

Uterine fibroids, the most common tumor in women, are thought to affect more than 70% of women by the time menopause starts. It is estimated that 25% of women who are of reproductive age have symptoms that are clinically noticeable and 25% of these women have symptoms severe enough to require treatment. However, because it frequently remains untreated in women, the condition's incidence is likely underestimated. Ultimately, symptoms may manifest gradually or without overt indications. Because the number and impact of unidentified UFs are unclear, epidemiological data and information on relevant factors are skewed to show severe disease. The trimester of evaluation, as well as the total number, location, size, and type of fibroid, are typically used to determine the risk of fibroids throughout pregnancy.

Between weeks 20 and 22, large fibroids are associated with symptoms like pyrexia, nausea, vomiting, and discomfort from a hemorrhagic infarction. Miscarriage may be caused by large

intramural or submucosal fibroids. Women with fibroids may also have reduced rates of pregnancy (0.849%) and implantation failure (0.821%) in addition to subfertility. Higher relative risks of IR (0.2%), CPR (0.3%), and MR (1.6%) are linked to submucosal fibroids. In certain patients, this is quite noticeable. Complications associated with uterine fibroids include preterm delivery, premature labor, dysfunctional and obstructed labor, and fetal disproportion. The most common malpresentation associated with these pregnancies is breech presentation. Such problems are more common in retroplacental and submucosal fibroids. The uterine fibroid has a pattern. The present study was conducted to assess the histopathological profile of uterine fibroids.

MATERIALS & METHODS

The present study was conducted among 78 women with uterine fibroids. All were informed regarding the study and their written consent was obtained.

Data such as name, age, parity, etc. were recorded. Until the delivery outcome was recorded, patients were closely observed and monitored clinically and ultrasonographically. We looked at gravida, kind, delivery method, and cesarean myomectomy. The excised surgical specimen was preserved in 10% neutral buffered formalin for 24 to 48 hours. The uterus, cervix, and bilateral adnexae were grossly examined. From each of the typical sites, at least two

pieces were chosen. After processing, these were embedded in paraffin. The sections (H and E) were prepared and stained using hematoxylin-eosin. To assess secondary changes, such as glandular and stromal modifications, a comprehensive histological study was conducted. 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	15	0.01
26-30	33	
31-35	11	
36-40	9	

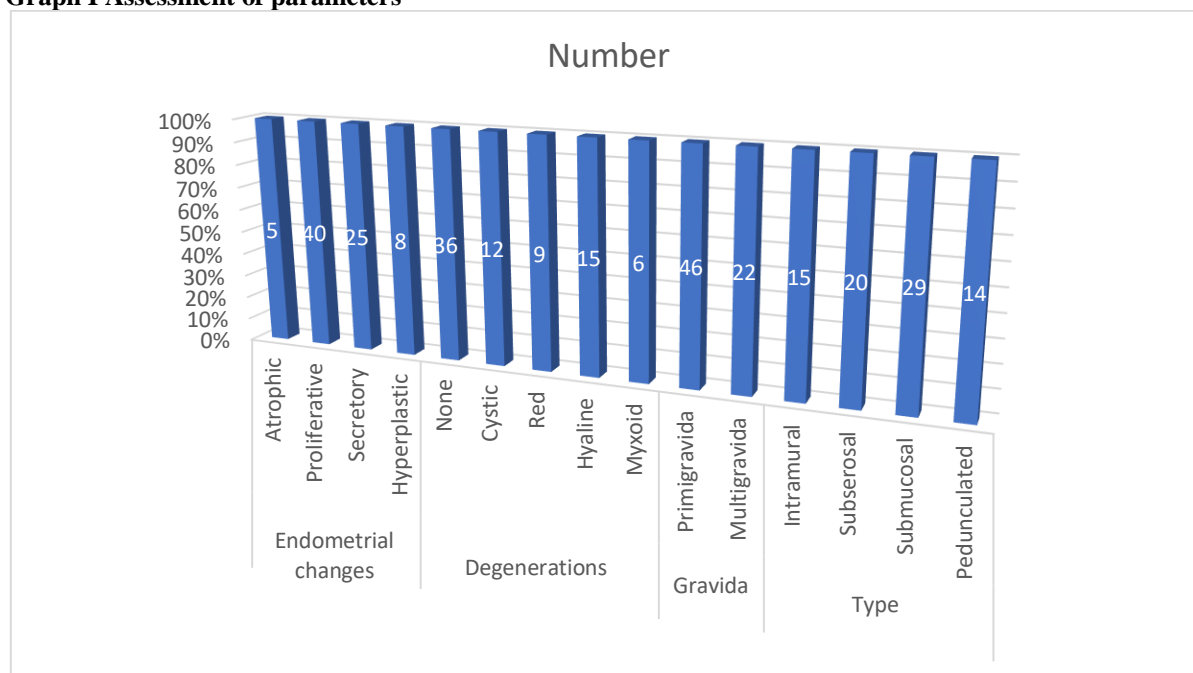
Table I shows that the age group 21-25 years had 15, 26-30 years had 33, 31-35 years had 11 and 36-40 years had 9 patients.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Endometrial changes	Atrophic	5	0.01
	Proliferative	40	
	Secretory	25	
	Hyperplastic	8	
Degenerations	None	36	0.04
	Cystic	12	
	Red	9	
	Hyaline	15	
	Myxoid	6	
Gravida	Primigravida	46	0.01
	Multigravida	22	
Type	Intramural	15	0.05
	Subserosal	20	
	Submucosal	29	
	Pedunculated	14	

Table II, graph I show that endometrial changes were atrophic in 5, proliferative in 40, secretory in 25 and hyperplastic in 8 cases. Degenerations were none in 36, cystic in 12, red in 9, hyaline in 15 and myxoid in 6 cases. 46 patients had primigravida and 22 patients had multigravida. The common type of uterine fibroids was intramural in 15, subserosal in 20, submucosal in 29 patients and pedunculated in 14 cases. The difference was significant ($P < 0.05$).

Graph I Assessment of parameters



DISCUSSION

Uterine fibroids (UFs), also known as uterine leiomyomas, are benign smooth muscle neoplasms of the uterus that affect women of reproductive age. They may cause a wide range of intense, protracted symptoms or none at all. Heavy menstrual bleeding, which can result in anemia, fatigue, and unpleasant periods, is the most common early symptom. Non-cyclic discomfort, abdominal protuberance, painful bowel movements or pelvic pressure, and bladder or bowel dysfunction resulting in pain or constipation from urine retention or incontinence are further signs of UF. One of the most significant side effects is abdominal pain brought on by impaction or torsion from pedunculated fibroids. In addition to analgesics, myomectomy may be required in these circumstances; although surgery was formerly contraindicated during pregnancy, numerous case studies have demonstrated its importance for intractable and recurrent pain. Nonetheless, this is recommended in situations of lower segment (cervical) or large fibroids (more than 5 cm) that result in uneven laying; in these cases, a cesarean section should be carried delivered at or about 38 weeks. Bleeding from APH and PPH is common in these circumstances. The present study was conducted to assess the histopathological profile of uterine fibroids.

We found that the age group 21-25 years had 15, 26-30 years had 33, 31-35 years had 11 and 36-40 years had 9 patients. Sarwar et al. assessed the difficulties related to uterine fibroids during pregnancy as well as the outcomes for both the mother and the fetus. This study comprised thirty participants who had fibroid pregnancy. In 14 patients, a normal delivery was accomplished (46.66%). Eight patients (26.67%) experienced miscarriages, while eight patients

(26.67%) underwent caesarean sections. Eight (26.67%) patients experienced miscarriages, eight (26.67%) experienced postpartum hemorrhage, ten (33.33%) experienced preterm delivery, and three people experienced antepartum hemorrhage, whereas seven (23.33%) patients experienced no difficulties. One patient (3.33%) experienced abdominal pain and technical difficulties during the cesarean section, while two patients (10%) experienced preterm rupture of the membranes. Twelve (40%) of the babies were healthy. Five kids (16.67%) were born with complications but made a full recovery. Four (13.33%) intrauterine fatalities occurred.

We found that endometrial changes were atrophic in 5, proliferative in 40, secretory in 25 and hyperplastic in 8 cases. Degenerations were none in 36, cystic in 12, red in 9, hyaline in 15 and myxoid in 6 cases. 46 patients had primigravida and 22 patients had multigravida. The common type of uterine fibroids was intramural in 15, subserosal in 20, submucosal in 29 patients and pedunculated in 14 cases. According to Noor et al., the prevalence of fibroids in our hospital was 0.865%, with 30 patients out of 3468 deliveries receiving a diagnosis during pregnancy. Half of the cases were between the ages of 20 and 30, and 27% were between the ages of 30 and 35. Twenty-one people (70%) were from low socioeconomic backgrounds. Between 37 and 40 weeks of pregnancy, 90% of patients were able to attain term. Patients in their first pregnancy had lower rates of fibroids (8, 23.66%). One patient (3.33%) underwent a hysterotomy, whereas twenty-one patients (70%) were delivered via cesarean section. The most frequent reasons for cesarean sections were failure to progress and fetal distress (8, 38.09%), followed by breech presentation (4, 19.04%), cord

prolapse (3, 14.28%), and lower segment fibroids (2, 9.52%). The most frequent consequence was anemia (20, 66.66%), which was followed by postpartum hemorrhage (PPH) (10, 33.33%). The most frequent malpresentation (4, 13.33%) linked to pregnancy-related fibroids was the breech presentation. Three patients (10%) each experienced premature rupture of the membranes and cord prolapse. A total of four patients (13.33%) had abdominal hysterectomy. Two patients (6.66%) had intrauterine growth restriction (IUGR); two of these patients had abortions; one patient experienced spontaneous pregnancy loss; and the other patient required a hysterotomy because of excessive vaginal bleeding and a low-lying placenta. Other problems that occurred in one patient each were compound presentation, low-lying placenta, placenta increta, retained placenta, stuck head of breech, and neglected transverse lay. Anaesthesia caused the death of one patient. Only four (13.33%) newborns had low APGAR scores and required NICU care, while 20 (67%) babies were of typical birth weight, indicating favorable neonatal outcomes. There were 37 perinatal deaths for every 1000 live births.

CONCLUSION

Authors found that proliferative endometrial pattern was the most frequently found. Common secondary changes observed in fibroid uteri include hyaline degeneration, myxoid degeneration, and cystic degeneration.

REFERENCES

1. Rice JP, Kay HH, Mahony BS. The clinical significance of uterine leiomyomas in pregnancy. *Am J ObstetGynecol* 1989 May;160(5 Pt 1):1212-1216.
2. Strobelt N, Ghidini A, Cavallone M, Pensabene I, Ceruti P, Vergani P. Natural history of uterine leiomyomas in pregnancy. *J Ultrasound Med* 1994 May;13(5):399-401.
3. Akhtar N, Sulthana S, Zabin F. Successful Outcome of pregnancy with large fibroid uterus- A case report. *Bangladesh J ObstetGynaecol* 2010;25(2):87-89.
4. Levy G, Hill MJ, Beall S, Zarek SM, Segars JH, Catherino WH. Leiomyoma: genetics, assisted reproduction, pregnancy and therapeutic advances. *J Assist Reprod Genet* 2012 Aug;29(8):703-712.
5. Klatsky PC, Tran ND, Caughey AB, Fujimoto VY. Fibroids and reproductive outcomes: A systematic literature review from conception to delivery. *Am J ObstetGynecol* 2008;198:357-366.
6. David James, Philip J, Steer, Carl P Weiner, Bernard Gonik, Stephen C. Robson. *High-Risk Pregnancy Management Options*, 5th Edition.
7. Te Linde's Operative Gynaecology, Eleventh Edition, Howard W Jones III, John A. Rock 2010.
8. Laughlin SK, Baird DD, Savitz DA, Herring AH, Hartmann KE. Prevalence of uterine leiomyomas in the first trimester of pregnancy: an ultrasound-screening study. *ObstetGynecol* 2009 Mar;113(3):630-635.
9. Ortiz FM, Romero BP, García EE, Barraza JB, Castro EQ, Garay FD. Uterine leiomyomas during pregnancy and its impact on obstetric outcome. *Ginecologia y obstetricia de Mexico*. 2011;79(08):467-73.
10. Raja KS, Tasleem H, Effects of uterine leiomyomata on the course of pregnancy and labour. *Rawal Med J* 2009;34:79-80.
11. Ashraf T. Management of uterine leiomyomas. *J Coll Physicians Surg Pak* 1997;7:160-2.
12. Cesen CK, Copland JA, Barrett JC, Walker CL, Daris BJ. Pregnancy, parturition, and prostaglandins: Defining uterine leiomyomas. *Environ Healthy Prospect* 2000;5:817-20.
13. Brown D, Fletcher HM, Myrie MO, Reid M. Cesarean myomectomy- A safe procedure. A retrospective case-control study. *ObstetGynecol* 1999;19:139-41.
14. Ikedife D. Surgical challenge of myomectomy at cesarean section. *Niger J Surg Sci* 1993;3:15-27.
15. Noor J, HASAN L. Outcome of pregnancies associated with fibroids. *Annals of King Edward Medical University*. 2007;13(1):135-41.
16. Sarwar I, Habib S, Bibi A, Malik N, Parveen Z. Clinical audit of foetomaternal outcome in pregnancies with fibroid uterus. *J Ayub Med Coll Abbottabad* 2012;24:79-82.