



MANAGEMENT OF FIBROID

Dr Shashwat K. Jani	Assistant Professor, Department of Obstetrics and Gynaecology, SMT NHL MMC (SVPIMSR), Ahmedabad, Gujarat, India
Dr Dhvani R. Rawal	Third Year Resident, Department of Obstetrics and Gynaecology, SMT NHL MMC (SVPIMSR), Ahmedabad, Gujarat, India
Dr Pushpa A. Yadava	Head of Unit, Department of Obstetrics and Gynaecology, SMT NHL MMC (SVPIMSR), Ahmedabad, Gujarat, India
Dr Dhruvi R. Patel	Third Year Resident, Department of Obstetrics and Gynaecology, SMT NHL MMC (SVPIMSR), Ahmedabad, Gujarat, India
Dr Forum A. Desai	Third Year Resident, Department of Obstetrics and Gynaecology, SMT NHL MMC (SVPIMSR), Ahmedabad, Gujarat, India
Dr Kush M. Mehta	Third Year Resident, Department of Obstetrics and Gynaecology, SMT NHL MMC (SVPIMSR), Ahmedabad, Gujarat, India
Dr Heny J. Patel	Second Year Resident, Department of Obstetrics and Gynaecology, SMT NHL MMC (SVPIMSR), Ahmedabad, Gujarat, India

ABSTRACT

Background- Uterine fibroid (leiomyoma) are benign monoclonal tumors of smooth muscle, originating from myometrium. They are typically round and well circumscribed masses, and the commonest benign tumor of the uterus, with estimated incidence of 20-40% in the reproductive age group.^(1,2) The exact etiology is unknown but they are mainly estrogen and progesterone dependent tumor, common during reproductive period, rare before menarche, and regresses after menopause. (3) They are monoclonal in origin which consists of uterine smooth muscles and large amounts of extracellular matrix like collagen, fibronectin and proteoglycan. They are usually multiple in numbers and may vary in size ranging from a few millimetres to 20 cm in diameter and more. Due to their wide range of clinical symptoms like menstrual irregularities, pelvic pain, infertility they have become an extreme public health burden on women and economic costs to the society. **Material And Method-** Present study is a prospective study on management of fibroid in gynaecology. Study was carried out in 75 patients who were registered in our institute from March 2023 to October 2023. **Results-** Majority of the patients were observed in 41-50 years of age group and were multipara. Most common symptoms were menstrual disorder 70.6%, followed by pain in abdomen 45.3% Intramural type of fibroid (54.6%) was observed most commonly. Commonest location of fibroid was on the posterior wall. Majority of the cases required surgical management (78.6%), followed by expectant (13.3%) and medical management (8%). Hysterectomy was performed in 66.68% cases and myomectomy was performed in 10.67% cases. **Conclusion-** Fibroids are the commonest benign tumor occurring in the reproductive age group. Majority of the leiomyomas are asymptomatic. Diagnosis is usually made by history, signs and symptoms and ultrasonography. Surgery remains the mainstay of treatment for uterine leiomyoma. It remains the single most common indication for hysterectomy. In the reproductive age group myomectomy remains the mainstay of treatment. Various minimally invasive procedures have been developed in addition to the hysterectomy and myomectomy. Although medication that alters the steroids hormone concentration is effective, there are side effects and poor affordability of patients for costly drugs (GnRh analogue) and mirena limit its use.

KEYWORDS : Fibroids, Hysterectomy, Myomectomy, Ultrasonography

INTRODUCTION:

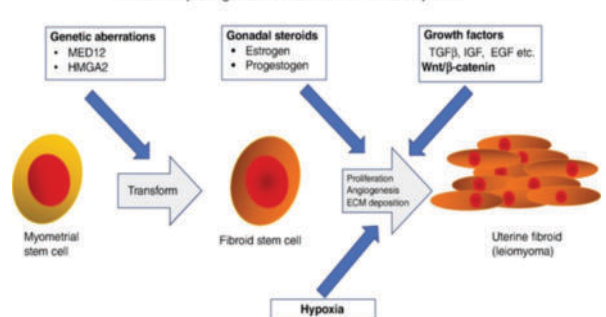
Uterine fibroid (leiomyoma) are benign monoclonal tumors of smooth muscle, originating from myometrium. They are typically round and well circumscribed masses, and the commonest benign tumor of uterus, with estimated incidence of 20-40% in reproductive age group.^(1,2) The exact etiology is unknown but they are mainly estrogen and progesterone dependent tumor, common during reproductive period, rare before menarche, and regresses after menopause.⁽³⁾

They are monoclonal in origin which consists of uterine smooth muscles and large amounts of extracellular matrix like collagen, fibronectin and proteoglycan.

They are usually multiple in numbers and may vary in size ranging from few millimetres to 20 cm in diameter and more.

Due to their wide range of clinical symptoms like menstrual irregularities, pelvic pain, infertility they have become an extreme public health burden on women and economic costs to the society.

Molecular pathogenesis of uterine fibroid development

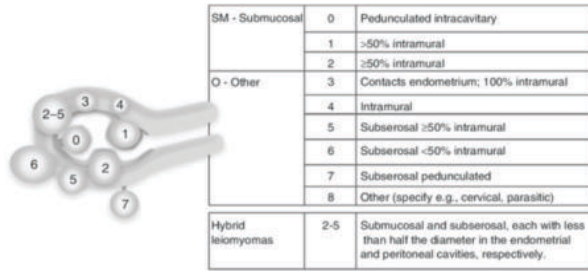


FIGO Classification:

AIMS AND OBJECTIVES-

- 1) To study epidemiology and etiological factors of fibroid.
- 2) To study various types and location of fibroid.
- 3) To study different modalities of management of fibroid and its outcome.

4) To study various complications associated with the fibroid uterus.



MATERIAL AND METHOD-

Present study is a prospective study on management of fibroid in gynaecology. Study was carried out in 75 patients who were registered in our institute from March 2023 to October 2023.

In all patients detailed history was taken including age, parity, menstrual history, obstetric history, past, present and family history and other significant medical and surgical history. Clinical examination including general, per abdominal, per speculum and per vaginal examination with required investigation was done. Radiological investigation including transabdominal sonography, transvaginal sonography, MRI, CT scan was done as and when required. Also PAP smear and endometrial biopsy examination were done as and when required. The mode of management of fibroid including conservative, medical, surgical and radiological was noted.

Histopathological examination reports of removed specimen of fibroid uterus or removed specimen of fibroid in myomectomy were also studied. All information was entered in a proforma and the "management of fibroid" analysed. Statistical analysis was done.

Inclusion Criteria:-

Pelvic mass suggestive of fibroid on ultrasound.
Patients who give consent to participate in the study.

Exclusion Criteria:-

Pelvic mass other than fibroid (e.g. adenomyoma, tubo-ovarian mass, ovarian cyst, etc.)
Patients who lost to follow up.

RESULTS:

Table 1: incidence Of Fibroid With Reference To Age

Age groups (in years)	Present study N= (%)	Khyade RL et al(4) (2017) (%)
21-30	11(14.6%)	-
31-40	26(34.6%)	24
41-50	32(42.6%)	68
Above 50	6(8%)	6

In present study maximum number of cases were found in 41-50 years of age group (42.67%), which is similar to the study conducted by the Khyade RL et al⁽⁴⁾.

Table 2: Symptomatology-

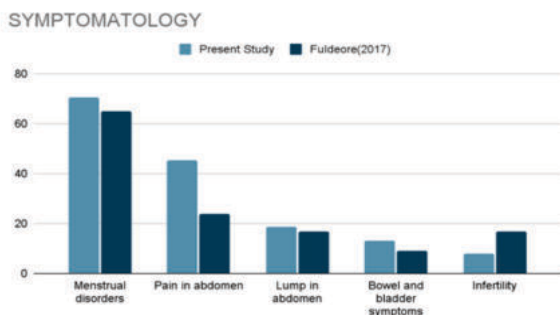
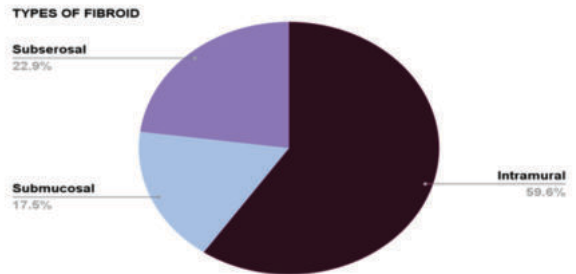


Table 3: Comparison Of Parity Wise Distribution Of Fibroid

	Present study N=(%)	Bhat(6)(2006)(%)
Nulliparity	11(14.6%)	5
Multiparity	64(85.3%)	95

In present study incidence of fibroid was 64(85.3%) in multiparous women and 11(14.6%) in nulliparous women. Similarly 95% in multiparous and 5% in nulliparous was seen in Bhat study⁽⁶⁾(2006).

Table 4: Types Of Fibroid



In present study intramural type of fibroid (59.6%) was observed most commonly followed by subserosal (22.9%) type of fibroid. Similar result was observed in the study of J. Jalandhar⁽⁷⁾ where 60% cases are of intramural fibroid and 20% cases are of subserosal type.

In present study commonest location of fibroid was found on posterior wall (58.6%), followed by anterior wall of uterus. In present study 2.6% cases have cervical fibroid and 4% cases have broad ligament fibroid.

Table 5- Uterine And Other Pathology Associated With Fibroid

Pathology	Present study N=(%)	Bhatta S et al(8) (2018) (%)
Chronic cervicitis	6 (8%)	58.33%
Adenomyosis	27 (36%)	19.64%
Ovarian cyst	10 (13.3%)	4.76%
Cervical polyp	1 (1.3%)	1.2%

In present study adenomyosis was found to be the most common pathology associated with the fibroid, whereas chronic cervicitis was observed as the commonest associated pathology in the study of Bhatta S et al⁽⁸⁾.

Table 6- Histopathological Study Of Endometrium In Hysterectomy Specimen Of Uterine Fibroid

Endometrial pattern	Present study N = (%)	Bhatta S et al(8)(2018)(%)
Proliferative pattern	25 (58.1%)	63.1%
Secretary pattern	15 (34.8%)	26.2%
Atrophic endometrium	1 (2.3%)	7.7%
Simple hyperplasia	2 (4.6%)	1.7%

In present study 43 patients had hysterectomy, out of which 58.1% cases had proliferative endometrium on histopathological examination, which is similar to the study of Bhatta et al, where 63.1% cases showed proliferative pattern of endometrium on histopathological examination.

Also in present study 34.8% cases had secretory endometrium, 2.3% case had atrophic endometrium and 4.6% cases had simple hyperplasia.

There is hyperestrogenic condition in fibroid uterus, which results into the increased endometrial proliferation and increased blood loss.

Table 7- Complication In Pregnancy With Fibroid Uterus

	Present study N (%)	Sarwat Navid et al(9) (2012) (%)	Mhatre SD et al(10) (2021)
Asymptomatic	3 (75%)	-	64.28%
Abortion	0	10%	7.4%
Malpresentation	0	12.5%	-
Placental abruption	0	7.5%	2.3%
PPH	1 (25%)	38.7%	-

In present study only 4 cases were observed with fibroid with pregnancy. Out of which 3 (75%) cases were asymptomatic and 1 (25%) case had PPH. Similarly in study of Mhatre SD et al⁽¹⁰⁾

64.28% cases are asymptomatic. No case of abortion has been reported in present study, as study has small sample size. Uterine architecture gets distorted in fibroid uterus which interferes in myometrial contraction leading to uterine atony and PPH. Chances of abortion are more with multiple fibroids, and fibroids located at corpus and with intramural and submucosal, as observed in the study of Sarwat Navid et al⁽⁹⁾ (2012)

Table 8- Mode Of Delivery In Pregnancy With Fibroid

	Present study N (%)	Mhatre SD et al(10) (2021)
Vaginal delivery	1(25%)	30.7%
Cesarean delivery	3(75%)	69.23%

In present study 3 (75%) women required caesarean section and 1 (25%) woman delivered vaginally, which is similar to the study of Mhatre SD et al where caesarean section rate was 69.23%. Indication for caesarean section in present study was fibroid in lower segment with floating head, contracted pelvis and previous caesarean section.

Table 9- Modalities Of Management Of Fibroid

	Present study N (%)	Davis et al (11) (2009)
Expectant management	10 (13.3%)	59%
Medical management	6 (8%)	6%
Surgical management	59 (78.6%)	35%

*Total 19 patients were offered medical management. 6 patient respond to it and 13 were refractory to it and was ultimately managed surgically.

In present study both OPD and indoor patients were small size fibroid and mild symptoms were offered medical management. Patients with big fibroid, infertility and moderate to severe symptoms were given surgical management. While those patients who were asymptomatic and diagnosed accidentally on ultrasound were offered expectant management.

In present study 59 (78.6%) cases were managed surgically, 6 (8%) cases were managed medically and 10 (13.3%) cases had expectant management, which is in the contrast to the study of Davis et al where majority of cases i.e. 59% had expectant management, 6% had medical management and 35% had surgical management.

Table 10- Types Of Surgical Management

	Present study N (%)	Khyade et al(12) (2017)
Abdominal hysterectomy	35 (46.67%)	66
Vaginal hysterectomy	2(2.67%)	-

Total laparoscopic hysterectomy	13(17.34%)	12
Myomectomy	8 (10.67%)	4
• Abdominal	6 (8.01%)	2
• Laparoscopic	2 (2.67%)	2
Cervical polypectomy	1(1.3%)	

In present study 35 (46.67%) women required abdominal hysterectomy and 13 (17.34%) women required laparoscopic hysterectomy. Also in present study it was observed that out of 8 (10.67%) women who required myomectomy, 6 (8.01%) had abdominal myomectomy and 2 (2.67%) had laparoscopic myomectomy. The study of Khyade et al reported that 66% women required abdominal hysterectomy and 12% had laparoscopic hysterectomy. Both the studies showed that abdominal route was commonly approached. But nowadays laparoscopic route is gaining popularity.

RESULTS-

In my study total 75 patients were enrolled and were studied with detailed history, examination and management.

Majority of the patients were observed in 41-50 years of age group and were multipara.

Most common symptoms were menstrual disorder 70.6%, followed by pain in abdomen 45.3% and lump in abdomen 18.6%. Infertility was present in 8% cases.

Intramural type of fibroid (54.6%) was observed most commonly followed by subserosal (28%) type of fibroid.

Commonest location of fibroid was found on the posterior wall (58.6%), followed by the anterior wall of the uterus. 4% cases had broad ligament fibroid, while 2.6% cases had cervical fibroid.

Adenomyosis (36%) was found to be the most common pathology associated with the fibroid, followed by ovarian cyst (13.3%) and chronic cervicitis (8%).

Out of 43 patients having hysterectomy, 25 (58.1%) cases had proliferative endometrium, 15 (34.8%) cases had secretory endometrium, 1 (2.3%) case had atrophic endometrium and 2 (4.6%) cases had simple hyperplasia.

4 cases were observed with fibroid with pregnancy. Out of which 3 (75%) cases were asymptomatic and 1 (25%) case had PPH.

In cases of fibroid with pregnancy, 75% cases had caesarean section and 25% cases had vaginal delivery. Fibroid in the lower segment with floating head, contracted pelvis and previous caesarean section were the indication for caesarean section.

Majority of the cases required surgical management (78.6%), followed by expectant (13.3%) and medical management (8%).

Hysterectomy was performed in 66.68% cases and myomectomy was performed in 10.67% cases.

CONCLUSION-

Fibroids are the commonest benign tumor occurring in the reproductive age group. Majority of the leiomyomas are asymptomatic. Diagnosis is usually made by history, signs and symptoms and ultrasonography. Mapping of fibroids is done with transvaginal sonography. Fibroids may lead to infertility or subfertility, but as the sole cause is found only in a small percentage of patients.

Surgery remains the mainstay of treatment for uterine

leiomyoma. It remains the single most common indication for hysterectomy. In the reproductive age group myomectomy remains the mainstay of treatment. Various minimally invasive procedures have been developed in addition to the hysterectomy and myomectomy. Although medication that alters the steroids hormone concentration is effective, there are side effects and poor affordability of patients for costly drugs (GnRh analogue) and mirena limit its use.

Abdominal hysterectomy and laparoscopic hysterectomy are the two common routes for hysterectomy. Vaginal route is preferred usually when uterus size is less than 14 weeks, mobile uterus and in absence of adnexal pathology.

REFERENCES -

1. Ryan GL, Syrop CH, Van Voorhis BJ. Role, epidemiology, and natural history of benign uterine mass lesions. *Clinical obstetrics and gynecology*. 2005 Jun 1;48(2):312-24.
2. Wallach EE, Vlahos NF. Uterine myomas: an overview of development, clinical features, and management. *Obstetrics & Gynecology*. 2004 Aug 1;104(2):393-406.
3. Cramer SF, Patel A. The frequency of uterine leiomyomas. *American journal of clinical pathology*. 1990 Oct 1;94(4):435-8.
4. Khyade RL, More RM. Fibromyoma of the uterus and its surgical management. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2017 Aug 1;6(8):3638.
5. Fuldeore MJ, Soliman AM. Patient-reported prevalence and symptomatic burden of uterine fibroids among women in the United States: findings from a cross-sectional survey analysis. *International journal of women's health*. 2017 Jun 7:403-11.
6. Bhat RA, Dgo PK. Experience with uterine leiomyomas at a teaching referral hospital in India. *Journal of Gynecologic Surgery*. 2006 Dec 1;22(4):143-50.
7. Jalandhara J, Mehta K, Desai R, Parakh P, Choudhary G. Clinicopathological study of uterine leiomyomas: A multicentric study in rural population. *International Journal of Medical and Health Research*. 2018;4(6):16-8.
8. Sushama B, Sunita B, Prasad OB. Histopathological study of uterine leiomyoma in hysterectomy specimens. *ACCLM*. 2017;3(2):16-20.
9. Navid S, Arshad S, Meo RA. Impact of leiomyoma in pregnancy. *Journal of Ayub Medical College Abbottabad*. 2012 Mar 1;24(1):90-2.
10. Mhatre SD, Vazirani A, Selvam V. Prospective study to assess the obstetric and perinatal outcome in fibroid complicating pregnancy. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2021 Mar 1;10(3):1073-7.
11. Davis BJ, Haneke KE, Miner K, Kowalik A, Barrett JC, Peddada S, Baird DD. The fibroid growth study: determinants of therapeutic intervention. *Journal of women's health*. 2009 May 1;18(5):725-32.
12. Khyade RL, More RM. Fibromyoma of the uterus and its surgical management. 2017;6(8):3637-40.