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Original Research Article

## Fibromyoma of the uterus and its surgical management

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### ABSTRACT

**Background:** Uterine fibroids are the commonest tumor affecting the female reproductive tract. In many instances they are asymptomatic, but in some women there does appear to be an association with heavy menstrual blood loss and subfertility. Classically treatment has been surgical with hysterectomy the most common approach for women who have completed their fertility and myomectomy for those who wish to conceive. The surgery can be carried out laparoscopically, vaginally and abdominally, although all routes are associated with an appreciable rate of morbidity. The aims of this study are (i) to formulate the line of surgical treatment of fibromyomas according to age and parity of the patient, (ii) to assess their efficacy, safety and long-term outcome.

**Methods:** A study of 50 patients attending the Obstetrics and Gynecology OPD of a tertiary care institute was conducted over a period of one year. Detailed history and examination of the patients were done.

**Results:** The best surgical options for individual patients were evaluated according to age and parity of the patient. Various surgical options were Hysterectomy and Myomectomy.

**Conclusions:** Uterine fibroids can cause multiple bleeding and pain symptoms, which might have a negative impact on women's life, influencing their sexual, social and work life. Despite these consequences uterine fibroid data, especially on epidemiology, symptomatology and their impact on women's health are still limited and further research is required.

**Keywords:** Abdominal hysterectomy, Fibromyomas, Myomectomy, Salphingo-oophorectomy, Vaginal hysterectomy

### INTRODUCTION

Uterine leiomyomas, most of which are asymptomatic, are by far the most common benign uterine tumors.<sup>1</sup> Uterine leiomyomas may be diagnosed on physical examination or with pelvic imaging. They may be subserosal, intramucosal, or submucosal in location within the uterus or located in the cervix, in the broad ligament, or on a pedicle. They are estimated to be present in a high percentage of all women of reproductive age and may be discovered incidentally during routine annual examination. Asymptomatic fibroids may be present in 40% to 50% of women older than 35 years of age.<sup>2</sup> Classically, treatment has been surgical for

symptomatic fibroids. The surgery can be carried out laparoscopic, vaginal, abdominal and, hysteroscopically although all routes are associated with an appreciable rate of morbidity.<sup>3</sup>

### METHODS

The study consisted of 50 patients attending the OPD of a tertiary care teaching hospital with over a period of one year. All patients included in the study were between the age group of 30 – 55 years, inclusive with symptomatic leiomyomas. The study consisted of general considerations, symptomatology and surgical management in particular. A detailed history and

examination was done as per proforma. All major investigations with ultrasound pelvis, transvaginal and transabdominal were done. PAP smear screening for cervical malignancy was done.

Depending on their age, parity, and severity of symptoms, size and location of fibroids and on the patient's desire to retain or remove the uterus, various modalities of surgery were planned and executed accordingly.

Hysteroscopy was done to examine the uterine cavity and to determine the site and size of the fibroids. In cases of small intramural and subserous fibroids in young parous women and elderly women awaiting menopause option of medical management was given.

Surgical management was preferred in cases of increased menstrual bleeding, continuous intermenstrual bleeding associated with anemia and increasing size of fibroid with bladder or bowel disturbances instead of the medical management.

**RESULTS**

Myomas are usually found in the reproductive age group. Age incidence in the present study was maximum in the age group of 41-45 yrs (46%). Incidence in the other age groups was 30 - 35 years – 2 %, 36 - 40 years - 22 %, 46 – 50 years - 24 %, 51 – 55 years - 6 %.

**Table 1: Treatment modalities.**

Modality	No
Surgical	47
Conservative	03

**Table 2: Type of Surgery done.**

Type	No of cases	%
Total abdominal hysterectomy with bilateral salphingo - oophorectomy (TAH BSO)	21	42
Total abdominal hysterectomy with unilateral salphingo - oophorectomy (TAH USO)	12	24
Vaginal hysterectomy (VH)	05	10
Laparoscopic assisted Vaginal hysterectomy (LAVH)	06	12
Hysterescopic resection of submucous myoma (HR)	01	02
Subtotal abdominal hysterectomy with unilateral salphingo - oophorectomy (SAH)	01	02
Abdominal myomectomy (AM)	01	02

Total abdominal hysterectomy with bilateral salphingo-oophorectomy was the surgical treatment of choice for maximum (21) number of patients.

**DISCUSSION**

1 out of 4-5 women develop uterine leiomyomata, the most common solid pelvic tumors in women. Although most leiomyomata are asymptomatic and grow slowly, 20-50% of the tumors produce symptoms, the severity of which depends on number, size, and location of the fibroids. The symptoms include menorrhagia, infertility, fetal wastage, pelvic pressure and pain, and related complications like ulceration, infection, fever, pain, uterine inversion and sarcomatous changes.

Asymptomatic patients with uteri of less than 10-12 weeks' gestational size require no more than observation at 6-month intervals regardless of fertility status. For women with uteri of 10-12 weeks gestational size or longer, management will depend on the patient's desire for fertility.

Women desirous of fertility should have a 6-12-month trial for conception. If tumor growth is rapid, myometomy may be performed earlier. Women not desirous of fertility (e.g., pre- and post-menopausal) should have total abdominal hysterectomy and bilateral salpingo-oophorectomy.

For symptomatic patients desirous of fertility, myomectomy using the transabdominal approach or hysteroscopy should be performed. For symptomatic patients not desiring fertility, dilatation and curettage and hysterectomy should be performed.<sup>4</sup> In our study we have decided the best surgical modality of treatment for the patient after taking detailed history, doing routine clinical examination and sonological investigations.

**Age-wise distribution**

The present study included patients from age group 35-55 years. Number of cases in the age group of 30-35 years were 1 (2%), 36-40 years were 11 (22%), 41 -45 years was 23 (46%), 46 -50 years was 11(22%) and 51-55 years was 3 (6%). These findings were compared with the incidence of fibroid uterus in other studies.

**Table 3: Comparison of age incidence.**

Authors	Age	%
Poddar <sup>5</sup>	31-40	55
Barauh <sup>6</sup>	21-30	54
Reddy <sup>7</sup>	31-40	50
Pinto <sup>8</sup>	31-40	44.7
Gogoi <sup>9</sup>	31-40	49.3
Allahbadia <sup>9</sup>	31-40	74
Bhat <sup>10</sup>	30-40	51
CO Ezeama <sup>11</sup>	30-39	50.5
Present Study	41-45	46

The age incidence of fibroid uterus in our study was seen to be higher than study conducted by other authors.<sup>5-11</sup>

### Management of fibroid uterus

Determining potential indications for surgical treatment requires careful judgement and assessment of the degree of associated symptoms.<sup>12</sup>

Hysterectomy has long been viewed as the definitive management of symptomatic uterine leiomyomas. Myomectomy is an alternative to hysterectomy for patients who desire child bearing, who are young, or who prefer that the uterus be retained.<sup>12</sup>

**Table 4: Comparison of management of fibroid uterus (percentage of cases).**

Authors	TAHBSO	TAHUSO	TAH	VH	LAVH	SAH	AM	VM	P	UAE	MM	HRSM
Poddar <sup>5</sup>	18.75	-	26.25	1.25	-	30	12.5	-	8-10	-	-	-
Pinto <sup>7</sup>	53	32.5	-	0.84	-	4.2	10	-	-	-	-	-
Gogoi <sup>6</sup>	17.77	-	50.53	1.06	-	3.9	6.4	7.47	12.8	-	-	-
Allahbadia <sup>9</sup>	-	-	-	-	-	-	98	2	-	-	-	-
Chhabra <sup>13</sup>	-	-	-	-	-	-	50	50	-	-	-	-
Bhatt <sup>10</sup>	-	-	56.9	-	-	-	18.9	-	-	-	25.3	-
Present study	42	24	-	10	12	2	2	-	-	-	6	2

Stewart EA states that uterine leiomyomas are the single most common indication for hysterectomy. Surgery has been the mainstay of fibroid treatment and various minimally invasive procedures have been developed in addition to hysterectomy and myomectomy. Formation of new leiomyomas after these conservative therapies remains the main problem.<sup>14</sup> Hysterectomy is associated with a high rate of satisfaction and is likely to relieve menstrual problems in virtually all women. In addition, myomectomy may lead to adhesion formation within the abdominal cavity, which may impair fertility further. In the present study, maximum number of cases were treated with abdominal hysterectomy, which is comparable with the studies of Poddar and Gogoi. Salpingo-oophorectomy was done when the ovaries were diseased in women of the perimenopausal age group. (Bilateral - 21% and Unilateral 12%). Subtotal abdominal hysterectomy with unilateral salpingo-oophorectomy was done in one (2%) case when there was difficulty in the pelvic dissection due to unfavourable conditions.

The percentage of vaginal hysterectomies was 10%. It was done when the tumours were small in size. Recent studies suggest that morbidity of abdominal myomectomy and hysterectomy are similar.<sup>15,16</sup> Laparoscopic myomectomy minimizes the size of the abdominal incision, although several small incisions are required.<sup>17</sup> The percentage of myomectomies in the present study was 2%. Compared with TAH, laparoscopy- assisted vaginal hysterectomy is associated with more complications, a shorter hospital stays and speedier postoperative recovery, less analgesia use, and higher costs.<sup>18</sup> The newer minimally invasive surgical procedure like laparoscopic assisted vaginal hysterectomy (LAVH) was 12%. Hysteroscopic resection of small submucous leiomyoma is a technique that may offer benefits for a selected group of patients.<sup>12</sup> In our study HRSM was done in 2% of cases. Vaginal Myomectomy, Polypectomy and Uterine artery

embolization were not indicated in any of the cases of the present study. Conservative management in the form of oral contraception for 2 patients and Mirena insertion was done in one patient.

Despite these consequences uterine fibroid data, especially on epidemiology, symptomatology and their impact on women's health are still limited and further research is required.<sup>19</sup>

### CONCLUSION

A prospective study of 50 cases of fibroids was carried out over a period of one year. The patients were in the age group of 30-55 years with various menstrual abnormalities in all age groups. Maximum number of cases was seen with 41-45 years of age. More than half the patients were Para 2 and above. Intramural fibroid was the commonest fibroid seen in 58%. The age, parity, number of fibroids, site and patients desire was considered while deciding the mode of treatment. Myomectomy was performed only in one case who was young and wanted to preserve her menstrual function. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was done in 42% of cases. Total abdominal hysterectomy with unilateral salpingo-oophorectomy was done in 24% cases. Vaginal hysterectomy was done in 10% cases. Laparoscopic assisted vaginal hysterectomy was done in 12% cases. Hysteroscopic resection of submucous myoma was done only in one patient. Subtotal abdominal hysterectomy with unilateral salpingo-oophorectomy was done in one case. Uterine fibroids can cause multiple bleeding and pain symptoms, which might have a negative impact on women's life, influencing their sexual, social and work life.

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