



Original Research Article

Prevalence and clinical presentation of uterine fibroids in saurashtra region of Gujarat: A cross-sectional study

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Abstract

Background: Uterine fibroids are considered one of the most widespread benign tumours of the uterus; these lesions are developing from the smooth muscles of the myometrium. The current study was performed in the Saurashtra area of Gujarat to determine the clinical symptoms of uterine fibroids and their incidence and to evaluate participants' knowledge of available medical services.

Materials and Methods: The study participants were selected from the Gynaecology OPD of the Guru Gobind Singh Government Hospital and M.P. Shah Medical College, Jamnagar, having complaints such as abdominopelvic pain and menstrual disorders, and including only female clients within the age group of 26-55 years. Data concerning their sociodemographic profile, number of years since the onset of menstruation, utilisation of medical services and prior treatment details were obtained. Further morphologic studies of the fibroids involved clinical examination, local examination and ultrasound examination.

Results: Present study involved 100 women who had been diagnosed with fibroids in the uterus. All the patients were between the ages of 36 and 40, while 78% of them fell under the low-income category, 72% patients were coming from the rural area. Commonest symptoms were Menorrhagia (38%), pelvic pain (26%), polymenorrhagia (11%). The study also found out that 55% of the patient were multiparous. Most abnormalities were observed within the intramural fibroids 56%, while the rest were adenomyosis 9% and polyps 10%. Majority patients (49%) were underwent total abdominal hysterectomy while other procedures included bilateral and unilateral salpingo-oophorectomy and myomectomy.

Conclusion: This study underscores the importance of early diagnosis and treatment of uterine fibroids, particularly in resource-limited settings. The results suggest that socioeconomic and geographical factors significantly influence the presentation and management of uterine fibroids in women.

Keywords: Uterine fibroids, Menorrhagia, Pelvic pain, Menstrual disorders hysterectomy, Myomectomy.

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1. Introduction

The uterus is a pear shaped muscular organ, which is responsible for child-birth as well as menstruation. Uterine fibroids can be defined as benign smooth muscle tumours that originate from the uterine muscular wall. It has been estimated that up to one-half of gynaecological hospital admissions have been attributed to uterine fibroids. Symptoms that patients present include; menorrhagia, anaemia, lumps in the abdomen that is associated with pains.

Fibroid is a common health problem particularly in the female reproductive age group where almost seventy percent are known to be affected while twenty-five percent present with clinical manifestations that warrant treatment. This condition incurs many medical, economical and sociological costs that affect the patients and the entire health sector. Leiomyoma tumours are mainly regulated by oestrogen hormones, and uninterrupted exposure to oestrogen, irrespective of pregnancies and lactations, is a risk factor.¹

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Indeed, most uterine fibroids are diagnosed without conscious effort during normal gynaecological examinations or imaging for other complaints that may manifest pelvic pain or infertility. The size, site, and number of fibroids can be as small as that of a dime or even up to a soccer ball.² Most of the fibroids are intramural, localised in myometrium, while the symptomatic fibroids are common in women of 35-55 years with average of 40 years old. Some of the symptoms they presented comprises menorrhagia, metrorrhagia, pain, submucosal fibroids which distort the uterine cavity.³

Many females come to the gynaecology clinic complaining of severe anaemia and pain because of fibroid degeneration, with complaints of having excessive by passage and spotting for long periods.³ Over time fibroids grow in size and although some are asymptomatic they might develop pressure symptoms and many of these patients will need surgery such as hysterectomy or myomectomy.⁴ Apparently, when fibroids are only felt through ultrasound, the pain can still be tremendous in some cases, most often in women aged between thirty and forty years. Uterine fibroids can also be present in women with subfertility or unexplained infertility, and although myomectomy is not always done, it can be if medical intervention has not borne fruit.⁵

The above-mentioned health issues such as heavy bleeding, and constant pains hinder women's mobility a lot in terms of emotions and occasions that requires her to use some of her pocket money to attend hospitals. It is however worthy of this discussion that depending on the literature reviewed, there is a variation to the socio demographic and geographic features of the condition such as US fibroids which are common in black women compared to whites or Asians.⁶ The purpose of this study was to establish the frequency and nature of uterine fibroids.

2. Materials and Methods

This was a prospective, hospital based observational study, which took place in Guru Gobind Singh Government Hospital, Jamnagar from January 2018 to December 2019. The study accrued women between the ages of 26 years to 55 years who presented themselves to the Gynaecology OPD with complaints of menstrual disorders, anaemia or presenting with complains of an abdominal pelvic mass and midline pain. The participants were enrolled after written informed consent. They were explained the voluntariness about participation in this study. They can withdraw themselves at any time of the study. Socio-demographic profile, clinical history and the previous treatment that had been offered to the patient were obtained from a detailed questionnaire that the researcher and the patient filled.

All necessary clinical, blood and radiological examinations were made together with the expenses incurred by the researcher. Other investigations carried out were: blood grouping, Rh typing, Hb level estimation, random blood sugar estimation and urine examination for routine

microscopy and culture sensitivity and specificity of ultrasound in evaluation of fibroid morphology, using transvaginal pelvic sonography. Above mentioned tests were carried out in our institution by pathology department and radiology department. Consent for the same was taken at the time of enrolment. All patients' outcome was followed up to discharge and follow up was done on the patients after treatment.

The data collected were recorded to an MS Excel format and analysed with the help of IBM SPSS version 20. The data were summarised by frequency and percentage while quantitative data by mean standard deviation respectively. Study was ethically approved by institutional ethics committee.

3. Results

This prospective, non-interventional study was carried out over a 17-months timeframe, where 1023 gynaecological admissions were registered, and about 100 (9.7%) patients had uterine fibroids. Among patients with Fibroids, largest age group of patients (35%) was in the 36-40 years. This poses that women were more likely to present with complaints of uterine health in this phase of their reproductive life. Also, 62% of the patients could not read, write, or document their comprehension of health information, which might influence their healthcare-seeking behaviour. In addition, 72% of the patients were from the rural setting suggesting health care facility constraints. More than three-fourth (78%) of the respondents were from the lower economic class, which might explain why they suffer more health issues since they were resource-poor (**Table 1**).

Abnormal uterine bleeding being the most common clinical complaint reported in 38 percent of the women, and the second most common was pelvic pain reported in 26 percent of the women. A relatively high percentage of the patients (55%) were multiparous, who could develop uterine fibroids as well as the complications thereof. The most common cycle pattern identified was Regular Heavy Prolonged defined as bleeding at least every 20 days with duration of 7 or more days by 40% of patients these results show major problems in menstrual health. Eighteen percent of patients have family history problems related to the uterus, which makes it explain that the observed conditions might not be heredity but other factors caused it (**Table 1**).

In current study, per abdominal examination findings had found mass in 10% patients, while per vaginal examination found that half of patients (50%) had less than 10 weeks mass, followed by 10-15 weeks mass (37%) and >15 weeks mass (13%). Furthermore, per-speculum examination had found No abnormality in 25% patients, while 55% patients had secretion, 12% patients had bleeding and 8% patients had cervical fibrosis. However, Ultrasonography had identified fibroids in all patients with intramural fibroid was most commonest (56%), though along

with fibroids, 10% patients had polyps, 9% had adenomyosis and 3% had prolapse (**Table 2**).

Table 1: Descriptive statistics of study variables

Variables		No of patients	Percent
Age group	25 – 30 Years	13	13.0
	31 – 35 Years	10	10.0
	36 – 40 Years	35	35.0
	41 – 45 Years	19	19.0
	46 – 50 Years	23	23.0
Education	Illiterate	62	62.0
	Literate	38	38.0
Residence	Rural	72	72.0
	Urban	28	28.0
Socio-economic class	Lower class	78	78.0
	Middle class	20	20.0
	Upper class	2	2.0
Clinical Presentation	Menorrhagia	38	38.0
	Pelvic pain	26	26.0
	Metrorrhagia	16	16.0
	Polymenorrhagia	11	11.0
	Infertility	5	5.0
	Retention of urine	5	5.0
	Something coming out of pelvis	3	3.0
Parity	Nuli-parus	6	6.0
	Primi-para	17	17.0
	Second para	22	22.0
	Multipara	55	55.0
Menstrual history	Regular Heavy Prolonged Periods	40	40.0
	Irregular Heavy Prolonged Periods	27	27.0
	Regular Moderate Prolonged Flow	23	23.0
	Menopausal	5	5.0
	Irregular Moderate Prolonged Flow	2	2.0
	Regular Moderate Period Length	2	2.0
	Irregular Scanty Prolonged Flow	1	1.0
Family history of Uterine abnormality	Present	18	18.0
	Absent	82	82.0

Table 2: Distribution of patients based on examination findings

Examination findings		No of patients	Percent
Per abdominal examination findings	Soft	90	90.0
	<16 weeks mass	1	1.0
	16-20 weeks mass	6	6.0
	21-24 weeks mass	3	3.0
Per Vaginal examination findings	<10 weeks	50	50.0
	10-15 weeks	37	37.0
	16-20 weeks	11	11.0
	>20 weeks	2	2.0
Per Speculum examination	No abnormality detected	25	25.0
	Secretion present	55	55.0
	Bleeding present	12	12.0
	Cervix fibrous	8	8.0

Table 2 Continued...

USG abdomen + pelvis findings	Intramural fibroids	56	56.0
	Submucosal fibroids	18	18.0
	Subserosal fibroids	4	4.0
	Fibroids + Polyps	10	10.0
	Fibroids + adenomyosis	9	9.0
	Fibroids + Prolapse	3	3.0

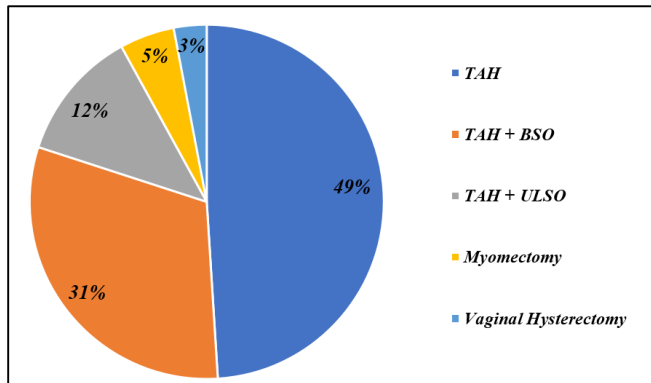


Figure 1: Distribution of patients based on surgical management methods

Most common surgery (49%) performed to treat fibroids was total abdominal hysterectomy (TAH), followed by TAH + BSO (Bilateral Salpingo-Oophorectomy) done in 31% patients, TAH + ULSO (Unilateral Salpingo-Oophorectomy) done in 12% patients, Myomectomy (5%) and Vaginal hysterectomy (VH, 3%) (**Figure 1**). Post-operatively histopathology had also confirmed fibroid in all 100% patients.

4. Discussion

Fibroids are benign tumours that occur most commonly in the uterus and can be a major source of health problems in women of child-bearing age. Their prevalence, incidence, and impact were influenced by other factors including age, lifestyle and socioeconomic status. This review aims at looking at prevalence, risk factors, and several published economic implications of the uterine fibroid from several studies.

Around three-fourth (75%) of women with uterine fibroids were aged between 31-50 years; however, other studies supported that peak age for fibroid occurrence was in this age group.^{7,8} The cut off score was higher in women with low education standards and from lower socioeconomic status as it affects their chance of early diagnosis of fibroids and access to treatments.^{8,9} The common symptoms were painful pelvic, heavy menstrual bleeding (menorrhagia) and obvious swelling in the lower abdomen in transit to diagnosis.^{7,8}

Commonest risk factors for developing the uterine fibroids increasing age, obesity, family history of fibroids,

early child bearing and having many children. Women residing in rural area had increased challenges to accessing healthcare, thus might not seek care for uterine fibroids at the earliest.⁷⁻⁹ Again, it was noted that the cost implication of uterine fibroids was high especially for women from poor background, who were likely to have higher disease complications due to poor resources.⁹

Abnormal uterine bleeding (AUB) could be accompanied with fibroids and symptoms could include heavy menstrual bleeding. The AUB has been found to affect 30% to 40% of women with symptomatic fibroids aged between 30 and 49 years. Past studies noted that AUB was prevalent issue among women with uterine fibroids, especially those aged 30 to 49 and around 30% to 40% of women with symptomatic fibroids might experience AUB, with heavy menstrual bleeding being a frequent concern.^{10,11} Sohn et al identified that the first complaint in most fibroid patients were heavy menstrual bleeding and heavy prolonged bleeding.¹² Abdominal pain was another symptom that was associated to pressure from the fibroid on the other organs of the body or actual pain that originates from the fibroid. Researchers indicate that 14%-23% of women diagnosed with fibroid complained of chronic pelvic pain.¹³ One of the common features of uterine fibroids in present study was a condition known as menorrhagia- excessive bleeding during the menstrual cycle. Study done by Uimari et al had noted similar problems of extended and often bleeding result from fibroid-mediated vascular pathologies.¹⁴

Per-abdominal examination findings in present study noted that only 10% of patients had a mass, while on per-vaginal examination, 50% patients had mass, which was consistent with existing characterization of the level of accuracy physical examination has in identifying uterine fibroids. Bimanual palpation examinations were less sensitive than imaging studies, particularly ultrasonography studies. Current study noted that ultrasonography identified fibroids in all patients with intramural fibroids being most prevalent at 56% was consistent with many large scale studies that have in fact associated ultrasound as highly efficient first line diagnostic tool in identifying the uterine fibroid disease. For instance, Shah et al proved that the methodologies influenced ultrasonography's diagnostic effectiveness by achieving an accuracy rate of 96.25% in fibroids.¹⁵

In present study, hysterectomy as the most frequently performed surgical intervention were confirmed by the

present tendencies of the treatment of symptomatic uterine fibroids. Research had established that hysterectomy remains the most common therapy for symptomatic fibroids, especially for women of childbearing age. Surgical management had been described by Sohn et al on the account that TAH was still widely used as a curative intervention.¹² Hysterectomy is an effective method for treating fibroids as it not only eradicates all symptoms of the diseases but also ceases all associated complications in women for example pain and fatigue.¹⁶

Furthermore, histopathological confirmation of fibroids after surgery should practice as portrayed in present study while histopathology predicts the voluminous relations with preoperative imaging findings.

Detection of adenomyosis in 9% of patients justified the involvement of fibroid symptoms and adenomyosis. Research findings had revealed that the two diseases were usually associated with each other making it difficult to diagnose the two. Karamanidis et al compared the diagnostic efficacy of MRI and TVS in diagnosing adenomyosis and the study concluded that both the methods yielded high sensitivity.¹⁷

5. Conclusion

This cross-sectional study shows that the occurrence of uterine fibroids were very common among women especially the ones aged 36–40 years. Delay in diagnosis and management of the condition could be due to the payment of lower income in rural areas, and consequently poor health care. This study findings underscore the need for advocating for better health care and diagnosing uterine fibroids in women earlier, with ideal treatment plans, particularly in the developing nations.

6. Source of Funding

None.

7. Conflict of Interest

None.

8. Ethical Approval

Study was ethically approved by institutional ethics committee.

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