



STUDY OF SYMPTOMS, COMPLICATIONS AND THERAPEUTIC OPTIONS FOR THE CLINICAL MANAGEMENT OF UTERINE FIBROIDS

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ABSTRACT

Background: Uterine fibroids are benign tumors that originate in the uterus (womb). These growths are typically not cancerous (benign). Uterine fibroids are the most common benign tumors in women of childbearing age. **Objectives:** to observe the symptoms and significant complications, to evaluate the different treatment strategies for management of uterine fibroids and to observe the best therapeutic options. **Methodology:** An observational study was conducted in various government and private sector hospitals and clinics of Lahore. A data collection form was designed and was filled by reviewing patient reports and by a face-to-face interview with patients or their

correspondents. The collected data was analyzed, and results were presented in the form of tables and graphs. **Result:** Majority of the patients were found to lie within the age range of 26-33 years (mean age). Most of the patients were suffering from asymptomatic uterine fibroids. About 60% of patients were reporting heavy menstrual bleeding and many of them were also having pelvic pain along with frequent urination. 82% of patients were facing pregnancy and delivery complications. Patients majorly go for surgical treatment rather than medication therapy. About 69% of patients were given Add-back therapy to relieve the side effects of GnRH agonists. **Conclusion:** A well-managed medication treatment strategy should be devised other than surgical treatment. The influence of pharmacist in providing proper counselling to the patients should be improved and the authorities should also utilize the services of pharmacist for optimizing medication therapy.

KEYWORDS: Fibroids, complications, therapeutic options, clinical management, symptoms, GnRH (Gonadotropin-releasing hormone).

INTRODUCTION

Uterine Fibroids are firm, compact tumors that are composed of smooth muscle cells and fibrous connective tissue that grow in the uterus. It is assessed that between 20 to 50 percent of women of reproductive age have fibroids.^[1]

Abnormal uterine bleeding and pelvic pain are the main symptoms of uterine fibroids thus impairing women's health related quality of life (HRQL).^[2] Menorrhagia, dysmenorrhea, fainting, dyspnea, urinary frequency and constipation are the important symptoms in the diagnosis of uterine fibroids in female of reproductive age. On the other hand, atypical symptoms like acute abdominal pain and pain between periods or internal bleeding do occur in patients. Increased urinary frequency and urgency can also occur, especially when these tumors arise from the anterior wall of the uterus and the masses arising from the posterior wall may cause rectal symptoms like back pain or constipation.^[3,4,5]

Complications of uterine fibroids consist of: Severe pain, pregnancy can be painful enough due to the increasing bump. Heavy bleeding, intermittent bleedings to continuous bleeding over weeks, bleeding is a common problem in non-pregnant women, but the risk of blood loss during pregnancy can be considerable.^[6,7] Anemia, iron deficiency can develop if fibroids cause extreme bleeding. The fibroid presses on the bladder it can be tough to empty bladder fully which results in urinary tract infections.^[8] Infertility may happen in cases where a woman has large fibroids. Fibroids can occasionally stop a fertilized egg attaching itself to the lining of the womb or check sperm to fertilize the egg, though this is uncommon.^[9,10] Fibroids may rise pregnancy problems and delivery hazards. These may comprise: Caesarean section delivery and Red Degeneration, this is a problem which can occur in the middle months of pregnancy generating increased risk of miscarriage or early labor.^[11]

There's no single best approach to treat uterine fibroid, many treatment options exist. A first line therapy for some cases of Uterine Fibroids can involve non-invasive options such as watchful waiting or medical therapy. These treatments are effective at temporarily handling the symptoms of pain, pressure and bleeding often related with fibroids. Medications for uterine fibroids target hormones that control menstrual cycle, treating symptoms such as heavy menstrual bleeding and pelvic pressure. They don't remove fibroids, but may shrink

them. Medications include: Gonadotropin-releasing hormone (GnRH) agonists, Progestin-releasing intrauterine device (IUD), Tranexamic acid (Lysteda), Androgens, Oral Contraceptives.^[12,13,14] Non-steroidal anti-inflammatory drugs (NSAIDs), which are not hormonal medications, may be effective in relieving pain related to fibroids, but they don't decrease bleeding triggered by fibroids.^[15]

There are also non-invasive procedures for clinical management of uterine fibroids which includes MRI-guided focused ultrasound surgery (FUS). A non-invasive treatment option for uterine fibroids that preserves patient's uterus.^[16]

Minimally invasive procedures are also included in the therapeutic options of uterine fibroids and these procedures can terminate uterine fibroids without eradicating them through surgery. They include Uterine artery embolization, Myolysis, Laparoscopic or robotic myomectomy, Hysteroscopic myomectomy, Endometrial ablation.^[17,18,19]

Clinical management of uterine fibroids also include traditional surgical procedures which are abdominal myomectomy and Hysterectomy.^[20,21]

AIMS AND OBJECTIVES

- To observe the symptoms and significant complications of uterine fibroids.
- To evaluate the different treatment strategies for management of uterine fibroids.
- To recommend the role of pharmacist in suggesting the best efficacious treatment for uterine fibroid patients.

MATERIALS AND METHODS

Study Type and Duration: the study was Observational and cross-sectional study done over a span of two months (July 2017- August 2017).

Sample Size: 100 patients suffering from uterine fibroids were selected.

Sampling Technique: Convenient random sampling technique was opted for study.

Study Place: Various private and government Hospitals in Lahore such as Services Hospital, Fatima Memorial Hospital, Ganga Ram Hospital, Salma Sarfraz hospital, Lady Wallington Hospital.

Inclusion Criteria: Female patients suffering from uterine fibroids were included in this study.

Exclusion Criteria: Female patients suffering from gynae problems other than uterine fibroids were excluded from this study.

Study Design: A data collection form was concisely designed covering the following aspects: patient's demographic information, evaluating the symptoms and complications of uterine fibroids and the clinical management of uterine fibroids. For that purpose, steps taken were: development of evaluation form, patients were interviewed directly after taking their verbal consent, checked patient's medical records, consulted with physicians and collected data. The collected data was analyzed using descriptive statistics and results were presented in form of tables and graphs.

RESULTS

Table 1: Patient's Demographics, Diagnosis and Symptoms.

Sr no	Parameters	Variables	Frequency N=100	Percentage
1-	Age	18-25	12	12%
		26-33	39	39%
		34-41	23	23%
		42-49	22	22%
		50-57	4	4%
2-	Marital status	Married	73	73%
		Unmarried	27	27%
3-	Diagnosis	Few days ago,	40	40%
		Few months ago,	20	20%
		2-3 years ago,	15	15%
		5 years ago,	20	20%
		More than 5 years ago,	5	5%
4-	Asymptomatic uterine fibroids	Absent	15	15%
		Present	85	85%
5-	Symptom of uterine fibroids		N=15	
		Heavy menstrual bleeding	5	33%
		Pelvic pain	2	13%
		Frequent urination	2	13%
		Rectal pressure	1	7%
		Lower backpain	2	7%
		Sexual discomfort	0	0%
		Anemia	1	7%

	Abdominal swelling	2	13%
	Others	1	7%

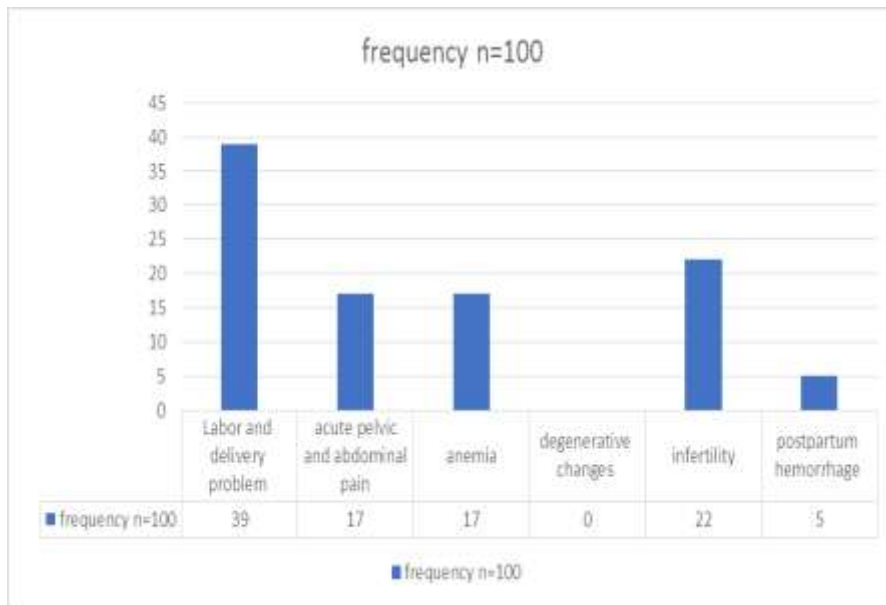


Fig 1: Complications of Uterine Fibroids.

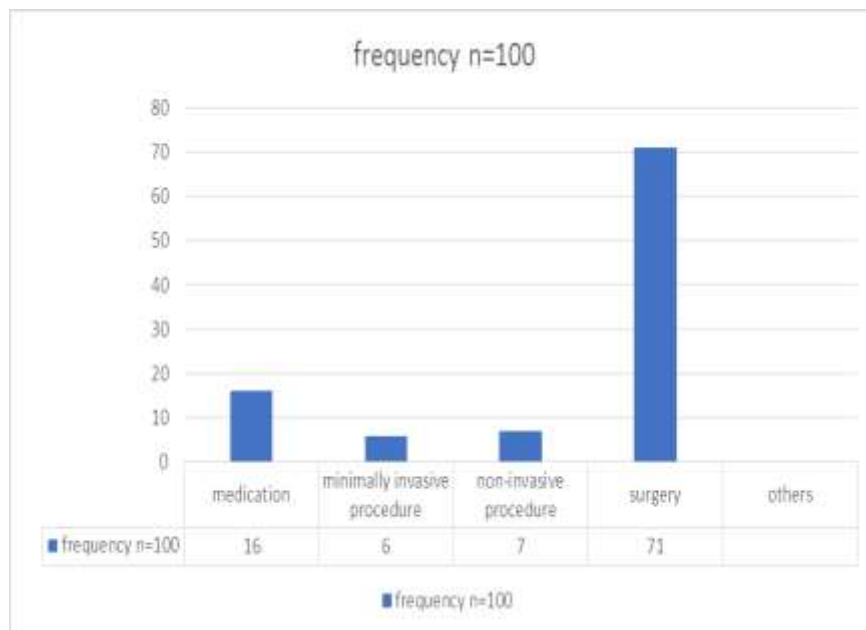


Fig 2: Treatment Options for Uterine Fibroids.

Table 2: Practice of Different Therapeutic Options in Clinical Management of Uterine Fibroids.

Sr no	Parameters	Variables	Frequency n=100	Percentage
1-	Minimal invasive procedures opted	MR guided focus ultrasound	11	11%
		Uterine artery embolization	33	33%
		None	56	56%
2-	Laparoscopic or robotic myomectomy	Yes	23	23%
		No	77	77%
3-	NSAIDs to control menstrual pain during treatment	Yes	92	92%
		No	8	8%
4-	Use of Lupron prior to surgery	Yes	57	57%
		No	43	43%
5-	Side effects of GnRH during surgical procedures	Thinning of bones	10	10%
		Night sweats	9	9%
		Dry vagina	26	26%
		Hot flushes	40	40%
		Loss of libido	2	2%
		Depression	7	7%
		Others	6	6%
6-	Back therapy to relieve side effects of GnRH	Added	69	69%
		Not added	31	31%

DISCUSSION

Uterine fibroids are the common benign tumors of uterus arises from smooth muscle cells and hence called as Leiomyoma.^[1]

The purpose of study was to observe the symptoms and significant complications, to evaluate the different treatment strategies and the best therapeutic option for clinical management of uterine fibroids. For data collection, visited Fatima Memorial Hospital Lahore, Ganga Ram Hospital Lahore, Lady Wallington Hospital Lahore and services hospital Lahore. 100 patients were interviewed, who were suffering from Uterine Fibroids.

This study revealed that fibroids were most commonly appeared during childbearing age as most of the patient were between 26-33 years of age. 85% of patients had asymptomatic uterine fibroid as according to experts about 40 to 80% of all women have fibroids, but mostly women never noticed them as they remain asymptomatic. The most common symptom of uterine fibroid was heavy menstrual bleeding (50%) whereas 13% had pelvic pain as according to experts' pelvic pain is less common symptom. 20% patients had problem of frequent urination which according to study was due to bladder problems. 2% had rectal pressure, 5% had lower back pain which was due to fibroids that press against the muscles

and nerves of the lower back.^[2,3] Only 2% patient did not have any fluctuation in the duration of menstrual period while 75% had fluctuations and 23% with a little bit fluctuation. 3% of patients did not feel tightness in their pelvic area, 30% with very mild, 23% with moderate and 44% of patients feel tightness in their pelvic area.^[4,5]

This study revealed that only 20% had frequent urination as compared to study in 2008.^[6,7] According to study, 39% patients had labor and delivery problems, 17% had acute pelvic and abdominal pain, 17% had anemia, 22% had infertility problem and 5% patients had postpartum hemorrhage as complications.^[8,9] 77% of patients had pregnancy issue and infertility problem. 82% had pregnancy complications and delivery risk due to uterine fibroid.^[10,11]

According to the study, 16% patients used medication for the treatment, 6% minimally invasive, 7% non invasive while 71% patients had undergone surgery. 73% patients had undergone watchful waiting as their treatment option while the referenced journals considered it as first line therapy.^[12,14] 92% of patients used NSAIDS to control their menstrual pain during treatment and it is also proved in a study that NSAIDS are only used to control pain, not to treat fibroids.^[15] 11% patients had undergone MR guided focused ultrasound, 33% had undergone uterine artery embolization while 56% had none whereas recent studies shows the effective results via uterine artery embolization. 23% patients had undergone laproscopic or robotic myomectomy as according to study myomectomy is the most commonly reported surgical intervention (35.9% in france, 21.6% in italy).^[17,20,21] Side effects commonly observed with the GnRH agonist during treatment were thinning of bones (10%), night sweats (9%), dry vagina (26%), hot flushes (40%), loss of libido (2%), depression (7%) and others (6%). Whereas, 69% of patients were given with Add Back therapy to relieve side effects of GnRH agonist.^[13]

Only 12% of patients were counselled by pharmacist about complications and only 16% were counselled properly regarding medication. 16% patients had taken guidelines about infertility management by pharmacist and only 9% of patients were assisted by pharmacists about financial consideration.

CONCLUSION

Uterine fibroids are highly prevalent which, at most of the time remain asymptomatic. Most of the patients prefer surgery as a treatment option for uterine fibroids. Medications are also

being used to treat them while advanced treatment options are less seen. It is the need of the hour to ensure rational prescribing and services of qualified pharmacists should be used in all stages of patient care.

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