Original Research Article

FIBROID UTREUS "SPECTRUM OF PRESENTATION AND ITS IMPACT ON WOMEN'S HEALTH

ABSTRACT

Objective: Uterine Fibroids are the most frequently observed benign tumor that develops in female reproductive system, most commonly found in women of 50 years of age. Menorrhagia is the most common clinical manifestation of uterine fibroids. Therefore, the aim of this study was to determine the clinical presentation, early detection with the best treatment modalities in women with uterine fibroids.

Methodology: This was a prospective hospital based observational study conducted at a tertiary care hospital in Mirpurkhas after taking ethical approval from institution review board. The duration of the study was about 9 months from July 2019 to March 2020. A total of 100 women in their reproductive age (20-50 years) who ever experienced menstrual abnormalities, complained of abdomino-pelvic mass, pain, urinary and bowl symptoms, anemia and infertility were included in the study. Categorical variables such as parity, age, anemic status, associated symptoms, diagnostic method, and treatment modalities were analyzed as frequencies and percentages.

Results: The study results showed that out of 100 patients, 19 (19.0%) patients were between 20-30 years of age, 23 (23.0%) between 31-40 years and 58 (58.0%) falls between 41-45 years of age. 67(67.0%) women had >3 children. Symptoms associated with uterine fibroids included 74(74.0%) were anemic. Dysmenorrhea was seen in 50(50.0%) patients, menorrhagia in 50(50.0%), patients. Palpable fibroid mass was felt in 35(35.0%) patients while 78(78.0%) cases reported fibroid masses on ultrasonography. Treatment of uterine fibroid included total abdominal hysterectomy was performed in 65 (65.0%) patients, myomectomy was carried out in 21 (21.0%).

Conclusion: This study concluded that multiparous patients were reported to have uterine fibroids more frequently as compared to nulliparous particularly in the age of 41-50 years old. The most common clinical manifestation was menorrhagia with anemia, persistent pain and pressure symptoms that have a negative impact on women's social, sexual, and work life.

Keywords: Menorrhagia, anemia, abdominal hysterectomy, uterine fibroid.

INTRODUCTION

Uterine fibroids are also termed as leiomyomas or myomas, are more prevalent uterine tumors. They are benign neoplasms of smooth muscle of female reproductive system with the involvement of different fibrous connective tissue.[1] Fibroids generally start in the myometrium but may infrequently exist in the cervix and ovaries.[1,2] Approximately, 80% women of child bearing age are affected by Uterine fibroids, leading to considerable morbidity in around 30% of women.[3] Growth of these benign tumors are dependent and sensitive to both hormones estrogen and progesterone [4]; their size frequently increases in pregnancy and generally decreases subsequent to menopause. Obesity and Early menarche are risk factors for the progression of fibroids, probably owing to increased secretion of estrogen.[5]. It is predicted that almost 70–80% of women will form Uterine fibroids at any stage in their life span..[6]

Incidence of Uterine Fibroids may be misjudged because of asymptomatic women. It is predicted that occurrence of fibroids range from 4.5% to 68.6% that depends on research population and investigative method.[7] Risk factors of Fibroids are age, race, family history, hypertension, dietary habits, time duration since last birth, premenopausal status.[7,8] On the basis of ultrasonography, the projected cumulative occurrence of fibroids in women less than 50 years is significantly greater for black (greater than 80%) against white women (~70%).[9]

On the other hand, around 25% to 50% of women with fibroids are showing symptoms wherein heavy menstural bleeding is the most frequent clinical presentation that can leads to anemia, weakness and pain in duration of menstrual period. Additionally, abdominal lump, non-cyclic pain, pain during intercourse or pelvic pressure, bladder or bowel impairment leads to urinary incontinence or retention.[10] Symptoms associated with Uterine fibroids have a negative impact

on physical and social activities along with health-related quality of life, and work efficiency.[11-14] Black women exhibits fibroids with more severe symptoms,[11,15] thereby raises disease trouble.[15,16] A big sized fibroid can represent as an abdominal lump or with pressure symptoms due to existence of mass for instance constipation and increased urinary frequency and urinary incontinence. Infrequently, hydronephrosis or bowel obstruction may also reflected.[17]

Usually, Ultrasonography (USG) is the primary investigative method for assessment of female pelvis. In ideal situation, both transvaginal (TV) and transabdominal (TA) scans should be carried out. [18] Small fibroids are more sensitively diagnosed by Transvaginal scans. However, in obese patients, Transabdominal views are frequently of restricted significance. USG is greatly dependent on skilled operator, fibroids as minute as 5 mm can be detected on TV USG.[19] MRI is the ideal technique for precisely describing pelvic masses. It has been evidently proved that MRI is more accurately diagnose uterine fibroids as compared to USG.[20]

As far as the treatment is concerned, hysterectomy is the commonest indication of symptomatic fibroids.[21] Conventionally, surgical treatment has been recognized but recently, uterine artery embolization (UAE) treatment has been progressively more executed and has been revealed to be a successful substitute to conventional surgical treatment.[21] Further treatment alternatives are administration of gonadotrophin-releasing hormone (GnRH) analogs or myomectomy.[21] A comparatively innovative non-surgical procedure for fibroid treatment is MRI-guided focused ultrasound ablation that focuses high energy ultrasound waves against a fibroid, resulting a heating of an affected small area and eventually leads to cell death.[22]

Generally, there is an inadequate awareness of fibroids in women and their probable impact on health.[23-25] Fibroids have a negative impact on woman's quality of life in addition to fertility and obstetrical effects. Approximately, 35-77% child bearing age-women are affected by Fibroids [26], Infertility in 5-10% patients are caused by the Fibroids [27]. Fibroids cause infertility by blocking the fallopian tubes and impaired movement of gamete. [28].

Existence of fibroids can cause complications in approximately 10-40% cases of pregnancies [23]. Fibroids may cause cesarean section, miscarriages, premature labor, mal-positioning of the fetus, and postpartum bleeding. Other rare complications are pain in pelvis region because of

deterioration of the fibroid, low Apgar scores in the newborn, renal malfunctioning, fetal limb abnormalities, and hypercalcemia.[29]

There is an insufficient data available regarding prevalence and clinical manifestation presenting in women with Uterine Fibroids in order to prevent morbidity. Therefore, this study was conducted to observe clinical presentation, prevalence of uterine fibroids in young to middle aged women to increase knowledge and timely diagnosis to prevent morbidity in order to enhance women's quality of life.

METHODOLOGY

This was a prospective hospital based observational study conducted at a tertiary care hospital in Mirpurkhas after taking ethical approval from institution review board. The duration of the study was about 9 months from July 2019 to March 2020. A total of 100 women in their reproductive age (age group 20-50 years) who ever experienced menstrual abnormalities, complained of abdomino-pelvic mass, pain, urinary and bowl symptoms, anemia and infertility were included in the study whereas pregnant women with fibroid and gestational amenorrhoea were excluded from study.

A pre-designed proforma was used for data collection. All the women who attended gynae OPD with complain of menorrhagia, dysmenorrhea, continuous pelvic pain, urinary frequency and retention, primary and secondary infertility, bowel symptoms, palpable mass and anemic status on investigations were registered for the study. Patients with fibroid uterus were diagnosed on the basis of history, examination and investigation (ultrasound). Management depended on the symptoms and diagnosis of the patients.

Data was analyzed using Statistical Package for Social Sciences (SPSS VERSION 22.0). Categorical variables such as parity, age, anemia status, associated symptoms, diagnostic method, and treatment modalities were analyzed as frequencies and percentages.

RESULTS

A total of 100 patients with diagnosis of uterine fibroids were enrolled for the study. 19 (19.0%) patients were between 20-30 years of age, 23 (23.0%) between 31-40 years and 58 (58.0%) falls between 41-45 years of age. Marital status showed that 15 (11.9%) women were unmarried while

85(85.0%) women were married. As far as parity is concerned, 23(23.0%) has never given birth, 10(10.0%) women had > 1 child and 67(67.0%) women had >3 children, as shown in Table I.

Frequency of symptoms associated with uterine fibroids included 74(74.0%) were anemic and 26(26.0%) were non-anemic. Dysmenorrhea was seen in 50(50.0%) patients, dyspareunia in 10(10.0%) and continuous pelvic pain was reported in 40(40.0%). Menstural abnormalities showed menorrhagia in 50(50.0%), patients, oligomenorrhea in 10(10.0%) and polymenorrhea in 40(40.0%) patients. Bowel symptoms were reported in 23 (23.0%) cases. Urinary symptoms were also accounted for a larger number, in which 40 (40.0%) patients were seen with urinary retention and 30 (30.0%) reported increased urinary frequency. Infertility was also a presenting complain in which primary infertility was seen in 6 (6.0%) patients while secondary infertility was reported in 10 (10.0%) patients, as shown in Table II.

Diagnosis was made by clinical examination and ultrasonography that revealed palpable fibroid mass was felt in 35(35.0%) patients while 78(78.0%) cases reported fibroid masses on ultrasonography. Treatment of uterine fibroid included total abdominal hysterectomy was performed in 65 (65.0%) patients, myomectomy was carried out in 21 (21.0%), subtotal hysterectomy was done in 6 (6.0%) while 8 (8.0%) patients were treated conservatively. 92% of the patients reported positive histopathology report of fibroid in their follow-up visit, as shown in Table III.

Table I: Demographic characteristics of patients. (n=100)

Variable		**n**	**%**
Age group	**20-30 years**	19	19.0
	31-40 years	23	23.0
	41-50 years	58	58.0
Marital Status	**Married**	85	85.0
	Unmarried	15	15.0
Parity	**Nulliparous**	23	23.0

	Para >1	10	10.0
	Para >3	67	67.0

Table II: Frequency of clinical presentation associated with uterine fibroid.

Variable		**n**	**%**
Anemia	**Yes**	74	74.0
	No	26	26.0
Symptoms of pain	**Pain with dysmenorrhea**	50	85.0
	Dyspareunia	10	15.0
	Continuous pelvic pain	40	40.0
Menstrual abnormalities	**Menorrhagia**	50	50.0
	Oligomenorrhea	10	10.0
	Polymenorrhea	40	40.0
Bowel Symptoms	**Yes**	23	23.0
	No	77	77.0
Urinary Symptoms	**Urinary retention**	40	40.0
	Increased Urinary frequency	30	30.0
	No symptoms	30	30.0
Infertility/ fertility	**Primary infertility**	6	6.0
	Secondary infertility	10	10.0

	Fertility	84	84.0

Table III: Frequency of diagnosis method and treatment of uterine fibroids. (n=100)

Variable		**n**	**%**
Diagnosis on physical examination (Palpable fibroid mass)	**Yes**	35	35.0
	No	65	65.0
Diagnosis by Ultrasonography	**Yes**	78	78.0
	No	22	22.0
Treatment of Uterine Fibroids	**Abdominal hysterectomy**	65	65.0
	Myomectomy	21	21.0
	Subtotal hysterectomy	6	6.0
	Conservative management	8	8.0
Postoperative Follow-up visits (histopathology report)	**Positive**	92	92.0
	Negative	8	8.0

DISCUSSION

Uterine fibroids are benign neoplasm that is sluggish in growth and originating from smooth muscle cells of the myometrium. Minimum menstrual abnormalities lead to grow asymptomatic fibroids to big size.[30] They frequently showed pressure symptoms in multiparous women. Generally, the patient shows abdominal heaviness with pain.[30] This study demonstrated the frequency of reported clinical symptoms in women with uterine fibroids.

One prospective observational study examined 362 women with uterine fibroids. They reported menorrhagia or with abdomino-pelvic mass. Out of 136 patients, menorrhagia reported in 58.8% women with severe anemia, 23% required blood transfusion, 17 were nulliparous women. Abdominal hysterectomy was performed in 88 women, 16 women received polypectomy and myomectomy was done in 22 nulliparous women. [31]The present study was consistent with the above reported research and observed that Menorrhagia 50(50.0%) was the commonest clinical manifestation with anemia 74(74.0%). Most of the women 67(67.0%) with uterine fibroids had more than 3 children. As far as the surgical treatment is concerned, most of the patients were treated by Abdominal hysterectomy 65(65.0%) followed by myomectomy. 21(21.0%) while only 6 patients received conservative management.

In a Bombay study by Rajeshwari, demonstrated that metrorrhagia was presented in 30% symptomatic fibroids.[32] Moreover, In Pakistani study by Shagufta conducted in Peshawar, revealed that the prevalence of fibroids was 78.99% wherein menorrhagia and anemia presented in 75% women. She further reported that fibroids grow in size with the increasing age of women with often presented with pressure symptoms.[33] Similarly, another research reported that periodic experience of urine retention was found in 13 women who had fibroids in cervix of size 16-20 weeks.[31] Various researches revealed that the most frequently observed menstrual pattern with symptomatic submucosal fibroids was menorrhagia.[30,32,33] The present study was in accordance with the above mentioned studies and proved that most of the women with fibroids clinically presented as menorrhagia 50(50.0%) with anemia 74(74.0%). Besides menstrual abnormalities, urinary retention 40(40.0%) and increased urinary frequency in 30(30.0%) cases were also observed.

Another research conducted at The Aga Khan University Hospital, Karachi, contrasted clinical manifestation and abdominal myomectomy and hysterectomy morbidity. In their research, 441 women reported with symptomatic fibroid, 135 patients were treated by myomectomy and 306 patients by hysterectomy. It was proved that Myomectomy can be recognized as a harmless substitute to hysterectomy for the surgical treatment of uterine fibroids, with preservation of women's quality of life.[34] As far as the present study is concerned, most of the women were treated by hysterectomy 65(65.0%) because affected women were aged between 41-50 years followed by myomectomy 21(21.0%) that is executed to preserve the women's sexual and reproductive functions.

Similarly, one of the researches assessed the surgical modalities. They demonstrated that medical treatment was not given to any patient, and with respect to surgical options, myomectomy was the most generally used surgical modality in 90.3% patients. Hysterectomy was done in 8.7% and polypectomy in 1% cases. This was not astonishing as mostly patients were nulliparous and still required to maintain their reproductive capability intact.[35] The present study proved that the Hysterectomy 65(65.0%) was the most commonly employed surgical modality followed by myomectomy 21(21.0%) because > 40 years of women were more affected.

Another research analyzed the clinical manifestation and showed that lower abdominal mass felt in (67%) that was the leading clinical manifestation. Infertility as a presenting symptom was observed frequently in the married women (51.5%) of the study population against unmarried women (45.6%).[35] The present study was in contradistinction with the above cited studies and revealed that Palpable fibroid mass felt on physical examination in 35(35.0%) cases that was not a common symptom at presentation. On the other hand, primary infertility in 6(6.0%) patients and secondary infertility was reported in 10(10.0%) patients.

Another study by Taran A, revealed 33% of his studied individuals had adenomyosis with leiomyoma clinically presented with pain in pelvis. He observed that women who experienced severe pelvic pain with bleeding moderately. Regardless of, smaller fibroids diagnosed on USG more liable to have concomitant adenomyosis. The present study indicated that 40(40.0%) patients with uterine fibroids presented with continuous pelvic pain with heavy menstrual bleeding in 50(50.0%) patients.

CONCLUSION

This study concluded that multiparous women were found to have uterine fibroids more commonly as compared to nulliparous in the age of 41-50 years. The most common clinical manifestation was menorrhagia with anemia, persistent pain and pressure symptoms that have a negative influence on women's social, sexual, and daily activities. Abdominal hysterectomy was the preferred choice of surgical modality followed by myomectomy. Further researches are required to determine factors developing fibroids for timely recognition in order to lessen morbidity rate and enhance the women's quality of life.

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