

Clinical Manifestations of Fibroid Uterus Presenting as Abdominopelvic Lump

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Abstract

Introduction: Uterine leiomyomas (fibroids) are the commonest benign tumors in women. Leiomyomas are the most common tumors in women of reproductive age. They are symptomatic in 50% of cases, with the peak incidence of symptoms occurring among women in their 30s and 40s. The presentation of uterine fibroids is quite variable. The majority of women with uterine fibroids are generally asymptomatic at the early stage and consequently get less clinical attention due to undiagnosed disease, while symptomatic women typically complain of abdominopelvic mass with or without abnormal uterine bleeding- mainly menorrhagia. *Objectives:* To study clinical manifestations of fibroid uterus presenting as abdominopelvic lump.

Materials and Method: In the present study total 100 cases of abdominopelvic lump attending the Obstetrics & Gynaecology OPD during the period of June 2013 to October 2014 were enrolled. A detailed history of presenting complaints & associated symptoms were noted along with menstrual history. A thorough general & systemic examination was performed. Examination assessed the presence or absence of mass (upon P/A, P/Sp or P/V). During bimanual examination the position, size, shape, mobility & tenderness of uterus & uterine appendages was noted. A clinical diagnosis was put

forth based on the symptomatology, per abdomen, per speculum & per vaginam findings for the presenting condition. *Results:* Fibroid was the most common abdominopelvic mass (53%). Majority of the women were in the age group of 36 to 45 years. Majority of the women were parous (98%). The most common presenting symptom among the fibroid cases was menstrual irregularity (81.13%) followed by lump in abdomen (60.38%). Pain was reported by 33.96% patients. Among the patients of menstrual disturbances Menorrhagia, dysmenorrhea and polymenorrhea were the most common type observed. 32 cases of fibroid had palpable mass. Most of the fibroid masses were firm in consistency (52.83%). Maximum fibroid masses had smooth contour (52.83%). All the palpable masses were mobile. The findings of clinical diagnosis were compared with the gold standard histopathological examination and it was observed that clinical examination had sensitivity of 73.58% with specificity of 80.85%. *Conclusion:* Thus we conclude that fibroid uterus was the most common (53%) presenting as abdominopelvic lump. Menstrual irregularity was the most common presenting symptom followed by lump in abdomen and pain was observed. Menorrhagia, dysmenorrhea and polymenorrhea were the most common type of menstrual abnormality. Clinical examination had sensitivity of 73.58% with specificity of 80.85%.

Keywords: Fibroid Uterus; Abdominopelvic Lump; Menstrual Disturbances; Pain.

Introduction

Abdominal cavity, really is a 'Pandora's

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box' with challenges in diagnosis. It presents many unexpected pathologies always posing dilemmas in various clinical situations. The uterine myoma is one such swelling which every gynaecologist encounters. Fibroid is commonest benign tumour of uterus. Fibroids have great impact on gynaecological as well as obstetric career of a woman. As fibroids have diagnostic, therapeutic and psychological challenges, it is essential to analyze its clinical manifestations in various perspectives.

The history of myoma dates back in the classical age of Greece [1]. Hippocrates (460-375 B.C.) referred to them as "uterine stones" and it was Rokitansky (1860) and Klob (1863) who introduced the term "fibroid". The credit for naming these tumours as "myoma" goes to Virchow [1]. 'Leiomyoma' or 'Myoma' or 'Fibromyomas' or 'Leiomyoûbromas' or 'Fibroleiomyomas' or the more commonly used term 'Fibroid'; are remarkably common benign tumours of the uterus [2]. Excluding pregnancy they are the most common of all pelvic tumours in female [3]. They are Slow growing, monoclonal tumours of the smooth muscle cells of the myometrium [4]. They are composed of large amounts of extracellular matrix containing collagen, fibronectin and proteoglycan.

Fibroid can be single or multiple in number. In recent times one of the biggest uterine myoma removed was weighing 30lbs (approx. 11.20kg) and measuring 21 inches in diameter from an Indian woman (June 2014) as reported by the UK mail [5]. But the largest fibroid ever reported weighed 63.3kg removed post-mortem in 1888 [6]. Based on their location they can be classified as submucosal, intramural or subserosal. The latter may be pedunculated. Myomas may also develop into a polyp and extend through the internal os [7].

Uterine leiomyomas (fibroids) are the commonest benign tumors in women. Leiomyomas are the most common tumors in women of reproductive age. They are symptomatic in 50% of cases, with the peak incidence of symptoms occurring among women in their 30s and 40s [8,9,10].

The presentation of uterine fibroids is quite variable. The majority of women with uterine fibroids are generally asymptomatic at the early stage and consequently get less clinical attention due to undiagnosed disease [11,12], while symptomatic women typically complain of abdominopelvic mass with or without abnormal uterine bleeding- mainly menorrhagia [11,13,14]. Studies have shown that women with myomas are more likely to present with abdominal mass and menorrhagia [11,14-19] and may also present with dyspareunia, dysmenorrhoea, abdominal discomfort or bloating, painful defecation,

back ache, urinary frequency or retention, and infertility [15-19]. During pregnancy, fibroids may be a cause of miscarriage, bleeding, abnormal lie and presentation [20]. The commoner symptoms include an abdominal mass, menorrhagia, pain, dysmenorrhoea, recurrent abortions, and pressure symptoms from the myoma.

Objectives

To study clinical manifestations of fibroid uterus presenting as abdominopelvic lump.

Materials and Method

The present study was conducted in the department of obstetrics and gynaecology of ACPM Medical College with the objectives to study the clinical manifestations of fibroid uterus presenting as abdominopelvic lump.

Following inclusion and exclusion criteria was used to select the study subjects.

Inclusion Criteria

1. Patients attending gynecological OPD with clinically suspected pelvic mass.
2. Age group 20-60 years.
3. Presenting asymptotically or symptomatically for detected gynaecological pelvic mass.
4. Masses arising from uterus, ovary, fallopian tube, broad ligament or cervix.

Exclusion Criteria

1. Patients' age group less than 20 or more than 60 years
2. Masses arising from other pelvic organs such as ureter, bladder, rectum.
3. Intrauterine pregnancy.
4. Functional Ovarian Cyst.

Thus by using the above mentioned inclusion and exclusion criteria total 100 patients attending the Obstetrics & Gynaecology OPD during the period of June 2013 to October 2014 were enrolled in the present study.

A detailed history of presenting complaints & associated symptoms were noted along with menstrual history. A thorough general & systemic examination was performed. Examination assessed the presence or absence of mass (upon P/A, P/Sp or

P/V). During bimanual examination the position, size, shape, mobility & tenderness of uterus & uterine appendages was noted. Rectal examination was performed in patients suspected with malignancy. A clinical diagnosis was put forth based on the symptomatology, per abdomen, per speculum & per vaginum findings for the presenting condition.

All the patients in the study underwent surgical management. After counseling and explaining the procedure to patient regarding the surgical intervention, a written informed consent was taken. After removing the mass all the specimens were submitted for detailed Histopathological examination. The final diagnosis was concluded based on Histopathological Diagnosis. The comparison of various pelvic lumps was done with Histopathological Diagnosis which was taken as Gold Standard.

The collected data was analysed using Statistical Package for Social Sciences Version-16 (SPSS V-16). The data was presented in tabular and graphical form for selected characteristics.

Results

In the present study Histopathological diagnosis was taken as final diagnosis. It was observed that the most common abdominopelvic mass was fibroid (53%). Other masses were Adenomyosis (11%), Chocolate cyst 3%, Polyp (13%) out of which endometrial polyps were 9%, cervical were 4%. Pyometra was 3%, Hydrosalpinx 3%, Benign ovarian tumors were 15%, Cancer Cervix was 2%, Malignant ovarian mass was 1% & Endosalpingiosis was 1%.

Table 1: Distribution of abdominopelvic lump according to histo-pathological diagnosis

Histo-Pathological Diagnosis		No. of Patients	%
Uterus	Fibroid	53	53
	Endometrial Polyp	9	9
	Cervical Polyp	4	4
	Cancer cervix	2	2
	Pyometra	3	3
	Adenomyosis	11	11
	Endosalpingiosis	1	1
Adnexal structure	Hydrosalpinx	3	3
Ovary	Benign ovarian	15	15
	Malignant ovarian	1	1
	Chocolate cyst	3	3

In the present study total 100 women were enrolled and it was observed that majority of the women were

in the age group of 36 to 45 years. Majority of the women were parous (98%) while only 2% were nulliparous.

Table 2: Age and parity wise distribution of cases

Groups		Fibroid (n=53)		Other mass (n=47)	
		No. of patients	%	No. of patients	%
Age Group (years)	Upto 25	0	0.00	1	2.13
	26 to 35	2	3.77	6	12.77
	36 to 45	46	86.79	36	76.60
	46 to 55	5	9.43	3	6.38
	>55	0	0.00	1	2.13
Parity	Nullipara	1	1.89	1	2.13
	P1	8	15.09	8	17.02
	P2	29	54.72	26	55.32
	≥P3	15	28.30	12	25.53

Table 3: Clinical presentation of fibroid

		Fibroid (n=53)		Other mass (n=47)		
		No. of patients	%	No. of patients	%	
Symptoms*	Pain	18	33.96	29	61.70	
	Lump in abdomen	32	60.38	11	23.40	
	Menstrual disturbances	43	81.13	41	87.23	
	Urinary complaints	12	22.64	7	14.89	
	Gastro intestinal disturbance	6	11.32	2	4.26	
	Menstrual abnormalities*	Loss of weight	0	0.00	1	2.13
		Dysmenorrhea	26	49.06	26	55.32
		Menorrhagia	28	52.83	25	53.19
		Polymenorrhea	20	37.74	24	51.06
		Hypomenorrhea	0	0.00	1	2.13
Oligomenorrhea		0	0.00	2	4.26	
Postmenopausal		0	0.00	3	6.38	

* Multiple responses were obtained

The most common presenting symptom among the fibroid cases was menstrual irregularity (81.13%) followed by lump in abdomen (60.38%). Pain was reported by 33.96% cases. Urinary complains were reported by 22.64% women while gastrointestinal

disturbance by 11.32% women. Among the patients of menstrual disturbances Menorrhagia, dysmenorrhea and polymenorrhea were the most common type observed.

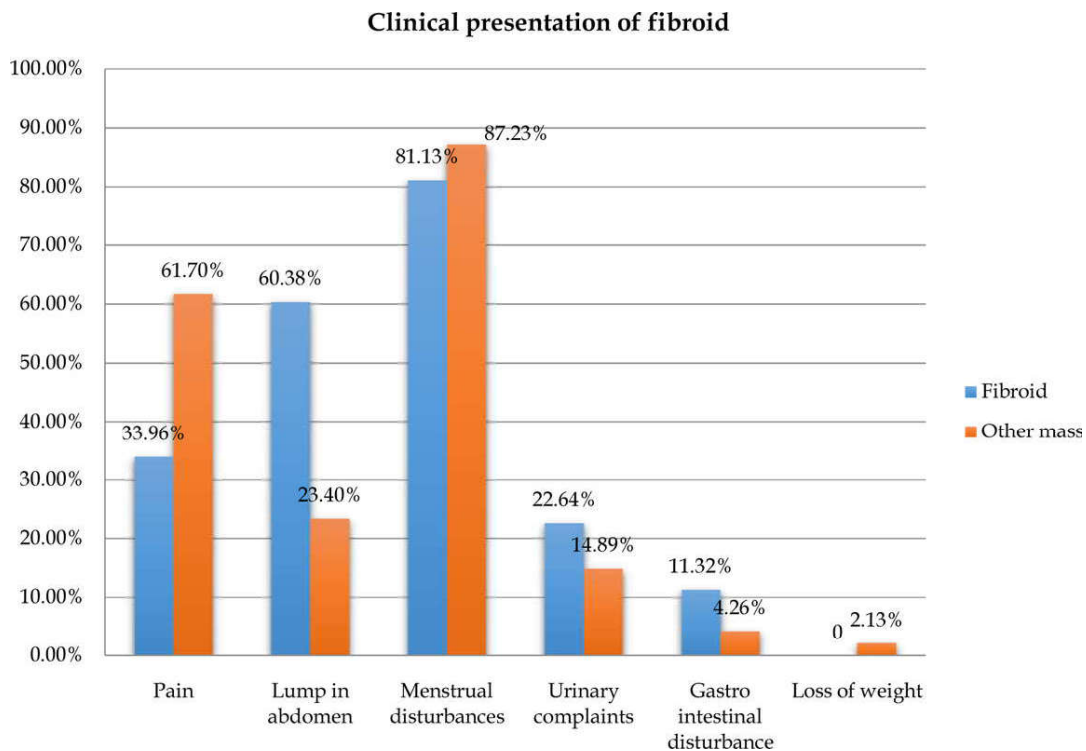


Fig. 1:

Table 3: Distribution according to Per abdominal features

Abdominal Mass		Fibroid		Other mass	
		No. of Patients	%	No. of Patients	%
Size (weeks)	Non palpable	21	39.62	36	76.60
	12 to 16	18	33.96	9	19.15
	16 to 20	6	11.32	0	0.00
	20 to 24	8	15.09	0	0.00
	24 to 28	0	0.00	2	4.26
Consistency	Soft	0	0.00	9	19.15
	Soft to Firm	2	3.77	0	0.00
	Firm	28	52.83	1	2.13
	Firm to hard	2	3.77	1	2.13
Contour	Irregular	4	7.55	0	0.00
	Smooth	28	52.83	11	23.40
Mobility	Present	32	100.00	11	100.00
	Absent	0	0	0	0

On clinical examination it was observed that out of 53 cases of fibroid 32 had palpable mass. Out of these 32 cases lump size of 12 to 16 weeks was seen in 33.96% cases. In 15.09% cases the size was in the range of 20 to 24 weeks. Most of the fibroid masses were firm in consistency (52.83%). Maximum fibroid

masses had smooth contour (52.83%). All the palpable masses were mobile.

The findings of clinical diagnosis were compared with the gold standard histopathological examination and it was observed that clinical examination had sensitivity of 73.58% with specificity of 80.85%.

Table 4: Efficacy of clinical diagnosis in diagnosing fibroid uterus presenting as abdominopelvic lump

Histopathological diagnosis	Clinical diagnosis			
	True Positive	False positive	False Negative	True Negative
Fibroid (n=53)	39(73.58%)	9	14(26.42%)	38

Statistics	Value	95% CI
Sensitivity	73.58%	59.67% to 84.74%
Specificity	80.85 %	66.74% to 90.85%
Positive Predictive Value	81.25%	70.21% to 88.85%
Negative Predictive Value	73.08 %	62.90% to 81.29%

Discussion

The present study was conducted in the department of obstetrics and gynaecology with the objective to study the Clinical manifestations of fibroid uterus presenting as abdominopelvic lump.

In the present study total 100 women with clinical presentations suggestive of various gynaecological pelvic lumps and undergoing surgical management were studied from June 2013 to October 2014. The clinical examinations along with ultrasonographic, intraoperative and histopathological examinations were conducted for diagnosing the fibroid.

Along with uterine fibroid various other cases such as adenomyosis, endometrial & cervical polyp, pyometra, hydrosalpinx, chocolate cyst, benign ovarian epithelial tumour, malignant ovarian epithelial carcinoma, carcinoma cervix and endosalpingiosis were encountered in the present study.

Out of the 100 patients studied for various pelvic lumps, it was revealed by Histopathological Examination (HPE) that Fibroid was the most common tumour encountered with a prevalence of 53%. Thus the highest prevalence of fibroid was seen in the in the present study which was in concordance to with the results of the studies by Pandey et al study (39.8%) [21], Kanwardeep et al (43.7%) [22] and Munir et al (46%) [23].

It was observed that majority of the women with fibroid were in the age group of 36 to 45 years. Thus the fibroid cases were common in the 3rd and 4th decade of life and the findings were comparable with findings observed by Pradhan et al [24] and Okogbo et al [14].

Majority of the women were parous (98%) while only 2% were nulliparous. Thus in the present study fibroid showed association with high parity (2 or more) which is in accordance with the studies of Pradhan et al [24] and Taran et al [25]. Parity shows association with fibroid. But various studies had

suggested that old nulliparous females have an increased risk of developing leiomyoma [26]. According to Okogbo study [14], myoma uteri is more common in nulliparous or subfertile women. In the present study, there was one nulliparous case aged 41 years who was diagnosed with fibroid. No fibroid was seen in postmenopausal cases.

The most common presenting symptom among the fibroid cases was menstrual irregularity (81.13%) followed by lump in abdomen (60.38%). Urinary complains were reported by 22.64% women while gastrointestinal disturbance by 11.32% women. The results were in concordance with Pradhan's study [24] where patients reported menstrual disturbance (73%), pain in abdomen (58.3%), lump in abdomen (13%) & urinary complaints (2.2%). Okogbo's study [14] also shows similar results where menstrual irregularities, abdominal swelling and abdominal pain (24.2%) were chief complaints.

The present study found that menorrhagia as the principle menstrual irregularity (52.83%) followed by dysmenorrhea (49.06%) and polymenorrhea (37.74%). Similar presentation was reported by Okogbo [14], Pradhan [24] and José Alberto Fonseca- Moutinho et al [27].

Fibroids are generally associated with an increased risk of heavy or prolonged menstrual flow [28,29]. Proposed reasons for this include increase in endometrial surface area, distortion and congestion of surrounding vessels, abnormal endometrial development, increase in blood flow to the uterus, and poor uterine contractility [28,30]. These are, however, not universally accepted [31].

On clinical examination it was observed that out of 53 cases of fibroid 32(60.38%) had palpable mass. Out of these 32 cases lump size of 12 to 16 weeks was seen in 33.96% cases. In 15.09% cases the size was in the range of 20 to 24 weeks. Most of the fibroid masses were firm in consistency (52.83%). Maximum fibroid masses had smooth contour (52.83%). All the palpable masses were mobile.

In the present study the findings of clinical

diagnosis were compared with the gold standard histopathological examination. Clinical examination was able to correctly diagnose fibroid in 39 (73.58%) cases while 14 (26.42%) cases were misdiagnosed. It was observed that clinical examination had sensitivity of 73.58% with specificity of 80.85%. Eight cases were misdiagnosed as adenomyosis while certain pedunculated leiomyomas were misdiagnosed as Tubo-Ovarian mass. Cantuaria GH study [32] stated that assessment by bimanual examination correlates well with uterine size at pathologic examination of fibroid.

Conclusion

Thus we conclude that fibroid uterus was the most common tumour (53%) presenting as abdominopelvic lump. Menstrual irregularity was the most common presenting symptom followed by lump in abdomen and pain was observed. Menorrhagia, dysmenorrhea and polymenorrhea were the most common type of menstrual abnormalities. Clinical examination had sensitivity of 73.58% with specificity of 80.85%.

Clinical acumen and elicitation of signs is "first an art to be cultivated and the science to be practised". Examination of the patient and elicitation of signs require skill and patience, which is essential in developing countries where advanced diagnostic tools are not always available. Clinical skill, knowledge and judgement goes a long way in improving the quality of care delivered to society. 'Preventive gynaecology is good obstetrics' applies well to benign uterine tumour, fibroid.

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