

Clinico-Demographic Profile and Outcomes of Uterine Fibroids: An Observational Study

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Conflict of interest: Nil

Abstract

Aim: The aim of the present study was to assess the prevalence, clinical presentations, management options and outcomes of uterine fibroids in Patna, Bihar, India.

Material & Methods: A cross-sectional retrospective study of 100 cases of uterine fibroids was conducted in the Department of Obstetrics and Gynaecology, Patna Medical College and Hospital, Patna, Bihar, India in between the duration of 1 year.

Results: The most prevalent age range was between 36 and 45 years at 46% while the mean age was 38.12±8.06 years. The parity of the patients ranged from 0 to 7 with most (76%) of the participants being nulliparous. Abdominal swelling was the most common complaint at presentation and was reported in 68% of the participants. Others were menorrhagia (24%), dysmenorrhea (22), abdominal pain (18%), vaginal protrusion (4%). It shows that the most (85%) of the participants had myomectomy, 7% had hysterectomy while 4% were managed conservatively. 40% had Intramural, subserous and submucous followed by 25% Intramural only in terms of location. Postoperative anemia was seen in 16% of the subjects. Wound infection and post operation pyrexia were reported in 1% and 2% of the participants.

Conclusion: Uterine fibroids are a common gynaecological condition in our environment. They usually occur in women of low parity and in their third or fourth decades of life. Surgery is the commonest mode of treatment, with abdominal myomectomy being the most frequent surgical intervention. This study showed that endoscopy is increasingly being employed in the management of fibroid. Pyrexia, anaemia and wound infection ranked as the commonest postoperative morbidities in our study. The use of minimal invasive procedures for its treatment will reduce the postoperative complications. It is advocated that women should be sensitized to report early for assessment of such illnesses.

Keywords: Fibroids, Leiomyoma, Myoma, Presentation, Myomectomy, Outcome

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Introduction

Uterine fibroids are one of the common benign tumours of uterus seen in women of reproductive age group and is associated with concurrent expression of higher levels of oestrogen receptors and they tend to shrink. During hypoestrogenic states such as after menopause. [1,2] These constitute 5- 10% of all these tumours. [3] These are also known as Uterine leiomyoma Uterine leiomyoma is among the most common problems encountered by Obstetricians and Gynecologists. [4] Leiomyomas are a frequent cause of abnormal menstrual bleeding and are thought to be involved in infertility. They are the most frequent indication for hysterectomy before menopause. [5,6,7] The

prevalence rate varies from 20-50% of reproductive-aged women, depending on the age, ethnicity, parity and method used to assess their prevalence. [8]

They have been classified according to their location as intramural, subserosal, submucosal and cervical. Intramural fibroids are commonest and are located within the wall of the uterus. Subserosal fibroids are located underneath the mucosal surface of the uterus. Submucosal fibroids are located in the muscle beneath the endometrium of the uterus and tend to distort the uterine cavity. Cervical fibroids are located in the wall of the cervix. [9]

A history of pelvic infection seems to increase the risk for uterine fibroids, with the risk increasing with the number of infectious episodes. [10,11] Pelvic inflammatory disease as seen in chlamydial infection was implicated unlike those infections that affected mostly the external genitalia, e.g. herpes, which showed no association. [12]

Majority of fibroids are, however, asymptomatic and are discovered during routine ultrasound scanning. Asymptomatic fibroids usually need no treatment. Only about 20% of fibroids are clinically apparent [13] and present with symptoms such as menorrhagia, dysmenorrhea, non-cyclical pelvic pain, infertility and recurrent miscarriage. [14,15] Large fibroids can cause symptoms due to its mass effect including abdominal protrusion, bowel and bladder dysfunction. The management options for uterine fibroids can be medical or surgical. Globally, myomectomy and hysterectomy are the commonest and most effective surgical treatment in the management of fibroids. [16] Even though hysterectomy is considered the ultimate treatment for uterine fibroid, it precludes pregnancy. Myomectomy is preferred in situations where fertility is needed to be preserved or where there are cultural or religious aversion to hysterectomy. Hence the aim was to assess the prevalence, clinical presentations, management options and outcomes of uterine fibroids in Patna, Bihar, India.

Material & Methods

A cross-sectional retrospective study of 100 cases of uterine fibroids was conducted in the Department of Obstetrics and Gynaecology, Patna Medical College and Hospital, Patna, Bihar, India in between the duration of 1 year.

Inclusion Criteria:

Patients above 18 years of age suffering from leiomyoma of the uterus and treated In myomectomy or hysterectomy was performed were included in the present study.

Exclusion Criteria:

Cases who were seriously ill, who did not give consent or in which biopsy specimen could not be processed properly were excluded.

Data Collection Procedure:

The patients were visited in the wards. After approval from the Institutional Ethics Committee was obtained. The study participants were informed about the importance and informed consent was taken. Detailed clinical history was taken. Data regarding age, reproductive status, history, clinical diagnosis and details of surgical procedure were recorded. The excised surgical specimen was received in the Department of Pathology and was fixed in 10% neutral buffered formalin for 24-48 hours. Gross examination of the uterus, cervix with or without bilateral adnexae was done to note the overall appearance. A minimum of two sections from the representative sites was taken. These were processed and paraffin-embedded. The sections were prepared and stained with hematoxylin-eosin (H and E). A detailed histopathological examination was done to assess glandular and stromal changes, secondary changes in leiomyoma and additional findings in fallopian tubes and ovaries. The findings were noted in pretested semi-structured proforma.

Data Analysis

The data was analysed using the Statistical Package for Social Sciences (SPSS) computer software version 26.0 IBM Corporation.

Results

Table 1: Age and parity of participants

Variables	Frequency	Percentage
Age range		
<=25 years	2	2
26-35 years	32	32
36-45 years	46	46
>45 years	20	20
Mean	38.12±8.06	
Range	24-59	
Parity		
0	76	76
1	12	12
2	8	8
3 and above	4	4
Range	0-7	

The most prevalent age range was between 36 and 45 years at 46% while the mean age was 38.12±8.06 years. The parity of the patients ranged from 0 to 7 with most (76%) of the participants being nulliparous.

Table 2: Distribution of clinical presentations

Clinical Presentations	N	%
Abdominal swelling	68	68
Menorrhagia	24	24
Dysmenorrhoea	22	22
Abdominal pain	18	18
Secondary infertility	14	14
Primary infertility	10	10
Vaginal protrusion	4	4
Urinary retention	3	3
Recurrent miscarriage	3	3
Recurrent vaginal bleed	2	2

Abdominal swelling was the most common complaint at presentation and was reported in 68% of the participants. Others were menorrhagia (24%), dysmenorrhea (22), abdominal pain (18%), vaginal protrusion (4%).

Table 3: Mode of Treatment of Participants

Treatment Modality	Frequency	Percentage
Myomectomy	85	85
Abdominal myomectomy	81	81
Vaginal myomectomy	3	3
Hysteroscopic myomectomy	2	2
Hysterectomy (total number)	7	7
Subtotal hysterectomy alone	1	1
Subtotal hysterectomy+ bilateral salpingo-oophorectomy	1	1
Total abdominal hysterectomy alone	1	1
Total abdominal hysterectomy+ bilateral salpingo-oophorectomy	5	5
Conservative	4	4
Lost to follow-up	2	2

It shows that the most (85%) of the participants had myomectomy, 7% had hysterectomy while 4% were managed conservatively.

Table 4: Showing the location of the uterine fibroid within the uterus

Location	Frequency (Percentage)
Intramural only	25 (25)
Submucous only	3 (3)
Subserous only	4 (4)
Intramural, subserous and submucous	40 (40)
Intramural and submucous	18 (18)
Intramural and subserous	8 (8)
Subserous and submucous	2 (2)

40% had Intramural, subserous and submucous followed by 25% Intramural only in terms of location.

Table 5: Postoperative complications of patients who underwent myomectomy

Complication	Frequency	Percentage
Anemia	16	16
Pyrexia	2	2
Wound infection	1	1
Pelvic abscess	1	1
Acute kidney injury	1	1
Mortality	1	1

Postoperative anemia was seen in 16% of the subjects. Wound infection and post operation pyrexia were reported in 1% and 2% of the participants.

Discussion

Even though hysterectomy is considered the ultimate treatment for uterine fibroid, it precludes pregnancy. Myomectomy is preferred in situations where fertility is needed to be preserved or where there are cultural or religious aversion to hysterectomy. Complications of myomectomy like peritoneal and intrauterine adhesions can impact negatively on reproduction. With or without treatment, fibroids have negative impact on the quality of life and reproductive potential of the female folk. If the women get pregnant, they are at increased risk of miscarriage, intra-uterine growth restriction, preterm labour, obstructed labour, operative delivery and primary postpartum haemorrhage. [16]

The most prevalent age range was between 36 and 45 years at 46% while the mean age was 38.12±8.06 years and was in consonance with other reports. [17,18] The parity of the patients ranged from 0 to 7 with most (76%) of the participants being nulliparous. This is similar to other local studies by Ezeama et al [19] and Okon et al. [20] The least prevalence of fibroids was seen amongst the multiparous women. This trend demonstrates that pregnancy is protective to the development of uterine fibroids. Abdominal swelling was the most common complaint at presentation and was reported in 68% of the participants. Abdominal mass as the first presenting complaint was also reported by Ornguze et al [21] in Makurdi, Northcentral Nigeria and Ezeama et al [19] in Nnewi, southeastern Nigeria. Others were menorrhagia (24%), dysmenorrhea (22), abdominal pain (18%), vaginal protrusion (4%). Possible reasons for menorrhagia include increase in the surface area of the endometrium, congestion and distortion of surrounding blood vessels, poor uterine contractility, defective development of the endometrium, development and increase in blood flow to the uterus. [22,23]

It shows that the most (85%) of the participants had myomectomy, 7% had hysterectomy while 4% were managed conservatively. 40% had Intramural, subserous and submucous followed by 25% Intramural only in terms of location. Postoperative anemia was seen in 16% of the subjects. Wound infection and post operation pyrexia were reported in 1% and 2% of the participants which was quite similar to study by Muhammad et al. [24] Hematoma formed in the dead spaces created during the uterine repair has been implicated in pyrexia occurring longer than 24 hours after surgery. The use of newer interventions, such as uterine artery

embolization, can reduce the risk of these complications. Post-operative anemia due to the surgical hemorrhage may be reduced by optimizing the patient prior to surgery, the use of minimal access surgical techniques, injection of intramyometrial vasopressin and the use of tourniquet or myomectomy clamp at surgery. The use of tourniquet applied at the uterine isthmus is the commonly used method in our centre. One case fatality was recorded in this study. This was likely due to another comorbidity's patient presented with

Conclusion

Uterine fibroids are a common gynaecological condition in our environment. They usually occur in women of low parity and in their third or fourth decades of life. Surgery is the commonest mode of treatment, with abdominal myomectomy being the most frequent surgical intervention. This study showed that endoscopy is increasingly being employed in the management of fibroid. Pyrexia, anaemia and wound infection ranked as the commonest postoperative morbidities in our study. The use of minimal invasive procedures for its treatment will reduce the postoperative complications. It is advocated that women should be sensitized to report early for assessment of such illnesses.

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