

Uterine Leiomyoma: Clinical Profile At Civil Hospital, Ahmedabad

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Abstracts: Introduction: Fibroid is the commonest tumor of the reproductive tract. This study was carried out to observe the frequency of fibroids in relation to age, parity, type and method of diagnosis along with clinical manifestations. Material & Method: The material comprised of 100 specimens of lesions of uterus received from patients admitted in Civil Hospital, Ahmedabad. Among these 37 patients presenting with fibroid uterus were included in the study. All details of the case consisting of age & parity, clinical history, relevant investigations, gross features and microscopic features were noted. Observations: Out of the 100 cases, clinical diagnosis of leiomyoma was made in 30 cases and on confirmatory diagnosis by histopathological analysis leiomyoma was observed in 37 cases. Most cases were found in late reproductive and perimenopausal years (89.19%). Majority was multiparous (81.08%) and 5.41% were nulliparous. Menorrhagia was commonest (40.54%), pain was second common symptom (27.02%). Leiomyomas were multiple in 59.46% and commonest variety was intramural (67.57%). Conclusion: Leiomyomas are found frequently in late reproductive and perimenopausal years. Multiparous patients are found to have fibroids more frequently than nulliparous. Most leiomyoma were intramural. Menorrhagia was the commonest clinical feature observed in leiomyoma cases. [Nayak J et al NJIRM 2012; 3(4): 50-53]

Key Words: Fibroid, Leiomyoma, Menorrhagia

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Introduction Benign smooth muscle tumours like leiomyoma are the commonest tumours in female genital tract and in the body as a whole. They constitute a major public health cost to the community in terms of out patient's attendances and hospital costs for surgery of this disease. These benign tumours occur in 20-40% females of reproductive age group¹. Their growth is considered to be dependent upon estrogens excess² as leiomyomas contain more estrogen receptors than normal myometrium^{3,4} and they usually regress after menopause.

The most common clinical manifestation is menorrhagia (in 30% of cases) followed by dysmenorrhoea, abdominal pain, mass and pressure symptoms. Infertility and repeated miscarriages may be the presenting symptoms. Uterine size, consistency, contours and mobility can be easily accessed by bimanual pelvic examination. Clinical, radiological and histopathological evaluation correlated very well to diagnose fibroids. Histopathology assumes a paramount importance in the documentation of

myometrial lesions, tumours and their grading accurately.

Hysterosalpingogram, Magnetic Resonance Imaging, Computed Tomography, hysteroscopy and endohysterosonography are other important diagnostic aids^{6,7}. Management is either conservative or surgical. Conservative treatment is used where myomas are asymptomatic. Surgical treatment includes hysterectomy, myomectomy and minimally invasive surgery. Hysterectomy improves the quality of life for women with certain uterine pathologies such as fibroids. The alternative of surgery is medical treatment e.g. Gonadotrophin Releasing Hormone Analogues (GnRH α).

In present study the workers wants to determine the frequency of disease, age & parity distribution, type, method of diagnosis and clinical manifestations of leiomyoma cases. This may result in optimal care, proper management and good prognosis of leiomyoma cases. It is also the aim of this study to aid in sensitizing the

community to the steady increase of fibroid tumours in population.

Material And Methods: Ethical committee permission was taken before starting study. The study material consists of 100 cases of lesions of uterus collected over a period of 6 months from May to October 2010 received at Central Laboratory, B.J.Medical College, Ahmedabad from patients admitted in Civil Hospital, Ahmedabad. The study was focused on 37 cases of leiomyoma. Brief essential clinical history and findings were recorded from the patient's case papers. In leiomyomatous uteri, a detailed gross morphology of myomas were noted, which included number, location and size. The tissue bits from representative area were taken for histopathological examination and paraffin blocks were prepared. The number of blocks prepared depended upon the size and morphology of tumours. Multiple sections of 5 microns thickness were cut and routinely stained with haematoxyline and eosin stain. Detailed micro-anatomic features were studied and recorded. The correlation between the clinical and true histopathological diagnosis was estimated.

Results: A total of 100 cases of uterine lesions were enrolled during the study period of May to October 2010. On histopathological analysis 37 cases were found to have leiomyoma. Age of the patients with leiomyoma ranged from 21 to 60 years. Majority of the patients (51.35%) were in 5th decade, followed by 4th decade (37.84%) with only one patient in 6th decade. (Table-I)

Table-I: Age distribution of leiomyoma (n=37)

Age in years	Number of Cases	Percentage
<20	-	-
21-30	3	8.11%
31-40	14	37.84%
41-50	19	51.35%
51-60	1	2.70%
>60	-	-
Total	37	100%

Majority of leiomyoma (Image – I) were found in multiparous women. Out of 37 patients with

leiomyoma, 30 (81.08%) were multiparous, 5 (13.51%) were uniparous and 2 (5.41%) were nulliparous (Table-II). Menorrhagia was the commonest (40.54%) symptom, followed by pain abdomen (27.02%). Mass per abdomen, prolapse and white discharge per vagina were least common symptoms. (Table-III)

Table-II: Parity distribution of leiomyoma (n=37)

Parity	Number of Cases	Percentage
0	2	5.41%
1	5	13.51%
2 or more	30	81.08%
Total	37	100%

Table-III: Symptoms (n=37)

Symptoms	No. of Cases	Percentage of Cases
Menorrhagia	15	40.54
Dysmenorrhoea	5	13.51
Pain abdomen	10	27.02
Mass per abdomen	3	8.10
Prolapse	2	5.40
White discharge per vagina	2	5.40
Total	37	100

Diagnosis of myomas was mostly clinical (30%) because of characteristic nature of tumour, while on histopathological diagnosis it was conformed in 37% of cases. Computed tomography and Magnetic resonance imaging can not be used as routine tests because of high cost (Table-IV). Out of 37 cases of leiomyoma, in the present study 25 (67.57%) were intramural in location. Submucosal leiomyoma were found in 8 (21.62%) cases and 4 (10.81) were subserosal in location. (Table-V)

Table-IV: Method of diagnosis of leiomyoma in uterine lesions (n=100)

Method	No. of Cases	Percentage
Clinical examination	30	30%
Histopathology	37	37%
Laproscopy	1	1%
Per-operative	1	1%

Table –V: Number and type of fibroid (n=37)

No. of fibroid	No. of Cases	Percentage
Single	15	40.54
Multiple	22	59.46
Type of fibroid		
Intramural	25	67.57%
Subserosal	4	10.81%
Submucosal	8	21.62%



Image – I : Leiomyoma (Gross appearance)

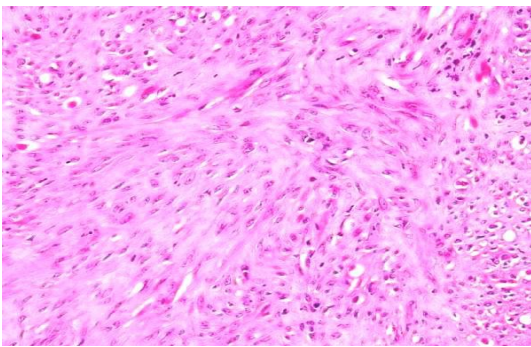


Image – II : Leiomyoma (Microscopic appearance)

Discussion: Leiomyomas are benign neoplasm commonly encountered in gynaecological practice⁸. Leiomyomas are usually found in reproductive age group. These tumours are most frequently seen clinically between the ages of 30 and 45, although they may start developing in the early twenties⁹. In the present study, the highest incidence (51.35%) was observed between 41-50 years. This finding correlates well with the observations made by Maureen A et al¹⁰ and

Shakira & Subhana¹¹. Reddy & Malathy⁸ observed highest incidence in 31-40 years.

Leiomyomas are believed to be common in nulliparous or relatively infertile women¹², a woman with high parity is far less likely to develop myomata than a woman who has never been pregnant at all. The statistics show that 60% of myomata arise in women who have either never been pregnant or have had only one child¹³. But in the present study, most were multiparous (81.08%) and 5.41% were nulliparous while uniparous constituted 13.51% of the cases. Chhabra and Jaiswal¹⁴ (1996, 82%) and Rosario Pinto¹⁵ (1968, 76.8%) in their studies also noted highest incidence of leiomyomas in multiparous women and lowest incidence in nulliparous women.

While confirming the diagnosis by histopathological examination (Image – II), high confirmation rates were found for leiomyomas. Majority of patients pre-operatively diagnosed as DUB were found to have leiomyoma. The clinical and histopathological correlation is 100% in cases of leiomyoma.¹⁶ Histopathology is mandatory for confirming diagnosis and thus ensuring optimal management.

The clinical features of leiomyomas are variable, the vast majority being symptomless especially when small. The symptoms and severity usually depends on size, position and the number of leiomyomas present. In the present study, highest number of patients with leiomyoma presented with menorrhagia (40.54%) followed by pain abdomen (27.02%). Menorrhagia was the commonest clinical symptom noted by Rosario Pinto¹⁵ (1968, 37.9%), whereas it is only about 16% in Bhaskar Reddy and Malathy⁸.

Leiomyomas arise anywhere within the myometrium (Image – I). Intramural distribution being the most common (75%), next submucosal (15%) and least are subserosal (10%).¹² In the present study, highest numbers of leiomyoma were intramural constituting (67.57%), followed by submucosal (21.62%) whereas the subserosal

leiomyoma constituted (10.81%). According to Shaw¹² and Rosario Pinto¹⁵ intramural leiomyoma was the commonest type. This is comparable to the present study.

Conclusion: Leiomyomas are found frequently in late reproductive and perimenopausal years. Multiparous patients are found to have fibroids more frequently than nulliparous, which shows their characteristics slow growth rate. Grossly most leiomyoma were intramural followed by subserosal. Menorrhagia was the commonest clinical feature observed in leiomyoma cases. The histopathological examination confirmed the clinical diagnosis in all cases of leiomyomas.

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