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Original Research Article

An Observational Assessment of the Clinicopathological Relation of the Uterine Leiomyoma

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Abstract

Objective: To analyze the clinico pathological spectrum in cases of Leiomyoma of the uterus.

Materials & Method: A clinical study of 130 cases of fibroid uterus was made in the Department of Obstetrics and Gynecology, Darbhanga Medical College & Hospital, Laheriasarai, Darbhanga, Bihar for 1 year. The cases are selected by random allocation. On admission, a detailed history, clinical examination and investigations were made. Diagnosis was confirmed by scanning in all cases. Diagnostic curettage was done to rule out any endometrial pathology especially in elderly patients.

Results: The most common benign tumor of the pelvis is Leiomyoma. Intramural fibroids were the commonest variety comprising about 55.3% of the cases. Histopathology report showed proliferative endometrial in 85 cases.

Conclusion: Leiomyoma is the most common benign tumor of the pelvis. Presence of proliferative endometrium, adenomyosis and cystic ovaries are all indicative of hyper estrogenic state associated with development of fibroids.

Keywords: Leiomyoma, histopathology, hysterectomy, endometrial changes

Introduction

Leiomyoma is the most common type of benign tumor of uterus and carry 70-80% of cumulative incidence in reproductive age group. These tumors are rarely seen before puberty and regresses after menopause indicating definite correlation with estrogen level. It is also called fibroid due to abundance of fibrotic tissue. [1,2]

Leiomyomas need hormonal milieu for their growth and maintenance as evidenced by the molecular studies that leiomyomas exhibit more estrogen receptors than normal myometrium. Unopposed estrogenic stimulation manifests commonly as endometrial proliferative phase or hyperplasia [3-5]. Leiomyomas are usually asymptomatic, however depending on their size, location and hormonal effects, the commonest clinical manifestations are menorrhagia, dysmenorrhea, pain abdomen, mass abdomen and mass effects [6]. Symptomatic leiomyomas need urgent attention either by myomectomy in younger women desirous of retaining the childbearing function. In elderly women

hysterectomy still remains the traditional modality of treatment [7,8].

Most cases of leiomyoma are asymptomatic and need no treatment. Among symptomatic cases, menstrual disturbances are the most common symptom and leads to anemia in majority of patients. Other common symptoms are abdominopelvic pain and pressure symptoms. Pressure symptoms are urinary frequency and urgency which may develop due to large size fibroid or sudden increase in size of the fibroid [9,10].

Therefore, this study is an attempt to analyze the clinico pathological spectrum in cases of Leiomyoma of the uterus.

Materials & Method

A clinical study of 130 cases of fibroid uterus was made in the Department of Obstetrics and Gynecology, Darbhanga Medical College & Hospital, Laheriasarai, Darbhanga, Bihar for 1 year . The cases are selected by random allocation. On admission, a detailed history, clinical examination and investigations were made.

In Patients with infertility, semen analysis of husband and tubal testing were made before undertaking conservative surgery.

At laparotomy:

Size of uterus, number and situation of fibroids, condition of tubes and ovaries were noted. In cases posted for myomectomy, tubal patency was tested utilizing methylene blue. The ovaries were conserved in cases of hysterectomies unless associated with pathology and in elderly patients. The removed specimen was cut anteriorly in the midline and near the cornu to inspect the cavity and seedling fibroids. The specimen was sent for histopathological examination of endometrial, myometrium.

Microscopic examination was done:

i. To confirm the lesions.

ii. For degenerative changes.

iii. Associated endometrial pathology.

iv. Associated with adenomyosis and

v. For changes in the ovaries, tubes and cervix.

Results:

Table 1: Different symptoms seen

Different symptoms	No. of cases	n%
Dysmenorrhea	15	11.5
Mass in abdomen	7	5.3
Urinary symptoms	13	10
Asymptomatic	3	2.3
Menstrual distribution	42	32.3
White discharge	5	3.8
Abdominal pain	26	20
Vaginal mass	2	1.5
Bowel disturbances	1	0.7
Infertility	11	8.4
Others	5	3.8
Total	130	100

Table 1: In around 15 cases the symptom of dysmenorrhea was recorded. In 05 patients the white discharge was seen, it was seen in cases of prolapsed and fibroid polyp. In 26 patients the complaint of pain in abdomen was recorded. In maximum cases the pain was due to cystic ovaries and in other cases the pain was due to endometriosis, urinary tract infection and cholelithiasis. In 07 patients there was complain of presence of mass.

Table 2: Incidences of various types of Leiomyomas

Type of fibroid	No. of cases	n%
Intramural	72	55.3
Broad ligament	8	6.1
Multiple	23	17.6
Subserous	8	6.1
Submucous	10	7.6
Cervical	9	6.9

Table 2: All the leiomyomata were corporeal, no extra uterine fibroid was encountered. Among all the patients, 6.9% were cervical, intramural fibroid were the commonest variety comprising about 55.3% of the cases, 7.6% submucous, 6.1% were broad ligament fibroids, 17.6% of the patients had multiple fibroids.

Table 3: Different histopathological pattern of endometrium

Histopathology pattern	No. of cases	n%
Secretory	19	14.6
Glandular hyperplasia	2	1.5
Simple hyperplasia	6	4.6
Proliferative	85	65.3
Atrophic	10	7.6
Unknown	8	6.1

Table 3: Histopathology report showed proliferative endometrial in 85 cases, secretary changes were noted in 19 patients, endometrial hyperplasia was seen in 6 cases, cystic glandular hypertrophy was seen in 2 cases, atrophic endometrial occurred in 10 patients. The results were inconclusive in 8 patients.

Discussion:

Uterine leiomyoma is the most common benign tumor of the female genital tract and originates from the smooth muscle cells of the myometrium [11].

In the present study, heavy menstrual bleeding was the most common chief clinical presentation and this is in concordance with studies done by Ibrar et al [12], Khyade RL et al [13] and Shaheen et al [14].

In the present study proliferative phase accounted for 65.3% were the commonest endometrial changes seen in association with uterine leiomyomas possibly due to hyper-estrogenic status in accordance with the study by Rosario et al [15], Purandare et al [16], Sanyal et al [17], Chethana M et al [18]. In the present study atrophic endometrium were 7.6% similar to studies by Denligdish et al [19].

Benign conditions like leiomyoma, dysfunction uterine bleeding, adenomyosis, pelvis inflammatory disease, endometriosis, pelvic organ prolapse which account for major hysterectomies and rest for malignancy. Of these benign lesions, leiomyoma followed by adenomyosis are the commonest indication for hysterectomy [20,21].

Though the incidence of cervical fibroid has been coated as very low, 0.6% (Tiltman) [22], the incidence in our study is comparatively high 6.9%.

The histological pattern of endometrium observed was proliferative type in 85 cases, these results are comparable to that quoted by other authors like, Chhabra *et al*. (40%) [23,24]. This indicates the hyper estrogenic states associated with fibroids,

endometrial was secretory in 12% of the cases.

Conclusion:

Leiomyoma is the most common benign tumor of the pelvis. The trends in the age incidence have remained the same, the occurrence of fibroid is rare before 20 years of age, and they cease to grow after menopause, thereby commonly affecting women of child bearing age, most common in third decade. The proliferative and hyperplastic endometrium was commonly reported. The presence of proliferative endometrium, adenomyosis, and cystic ovaries all are indicative of hyperestrogenic state associated with the development of fibroids.

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