



## Study of uterine leiomyoma and associated endometrial changes

### KEYWORDS

uterus, leiomyoma, Menorrhagia, endometrium

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### Introduction

Menorrhagia is a distressing health problem in women. The aetiology of menorrhagia in women of late reproductive and perimenopausal needs complete evaluation by clinical examination, the other recent methods like aspiration of endometrium and endometrial biopsy. The common aetiological factor for menorrhagia is the benign myometrial lesions.

Smooth muscle neoplasms of uterus are extremely common and the most of them are leiomyomas, commonly known as Fibroids. These tumours may be incidental in uteri removed for other reasons, but they are also responsible for a variety of common gynaecological and obstetrical difficulties. These are noted in 20-30% of women over 30 years of age<sup>1</sup> and are found in 75% of hysterectomy specimens when a systemic search is conducted<sup>2</sup>.

These are common in middle aged women and uncommon before 30 years.

More than 50% of leiomyomas are asymptomatic. The usual clinical manifestations of leiomyomas are menorrhagia, dysmenorrhoea, abdominal pain, pressure symptoms, infertility, repeated miscarriages and anaemia. The clinical presentation also depends upon the size and location of the tumour. Submucosal lesions can cause menorrhagia, large leiomyoma can cause enlarged uterus and can be detected by routine pelvic examination.

### Aims and objectives

To study clinico pathological analysis of leiomyomas, age and site wise analysis as well as associated endometrial changes.

### Materials and Methods

A prospective study for a period of 2 years from October 2007 to September 2009 was done in the Department of Pathology, Kurnool Medical College, Kurnool. During the above period 478 hysterectomy specimens were received of which 170 cases of leiomyomas were reviewed and tabulated.

Table 1:

Period of study	Total surgical specimens	Total gynaecological specimens	Total hysterectomy specimens	Total leiomyomas
1-10-07 to 30-09-07	9120	1242 (13.61%)	478 (38.48%)	170 (35.56%)

### Observation

Leiomyoma was the most common tumour of the myometrium comprising 35.56% of the hysterectomy specimens.

Majority of the patients were in 4th and 5th decades with peak incidence in the 4<sup>th</sup> decade (38.82%). Age wise incidence is represented in the **Table 2**.

Table 2.

SI.NO	Age	Number of cases	Percentage%
1.	21-30	38	22.35
2.	31-40	66	38.82
3.	41-50	46	27.06
4.	51-60	18	10.59
5.	61-70	02	1.18

cases<sup>3</sup> (72.35%). Other clinical features and their incidence is represented in the Table 3. Menorrhagia was the commonest clinical presentation in 123

Table 3:

S.NO	Clinical features	No of cases	Percentage%
1.	Menorrhagia	123	72.35%
2.	Mass per abdomen	85	50%
3.	Dysmenorrhoea	60	35.29%
4.	Infertility	20	11.76%
5.	Bladder disturbance	20	11.76%



Of these 159 cases of conventional leiomyomas , only 19 cases were associated with endometrial changes. This data presented in the **Table 4.**

**Table 4.**

S.NO	Histological type	No.of cases	Percentage%
1.	Conventional leiomyoma	140	82.35
2.	Leiomyoma with adenomyosis	14	8.23
3.	Leiomyoma with endometrial polyp	04	2.35
4.	Leiomyoma with endometrial carcinoma	01	0.58

### Discussion

In the present study, 8.23% of leiomyomas showed associated adenomyosis. The study by Mohammed et al(2005) reported greater percentage(36.8%)of adenomyosis associated with leiomyomas. Variable endometrial changes were noted. Majority of uterine leiomyomas showed proliferative phase endometrium in 119 cases(70%), Secretory phase, endometrial hyperplasia and atrophic changes noted 1.17%, 10.58% and 15.29% respectively. The data presented in the Table 5.

**Table 5**

Endometrial changes	Rosario and Pinto	Ramesh et al	Present study
Proliferative phase	51.10	48.23	70
Secretory phase	17.15	30.54	1.17
Endometrial hyperplasia	20.40	18.34	10.58
Atrophy	11.0	2.80	15.29

### Conclusion.

Leiomyomas are commonly found in reproductive and perimenopausal age group. The presentation of fibroid depends upon the location and size of the tumour. The degree of rapidity and severity of vascular insufficiency determines types of degenerative changes. Associated adenomyosis is also common in leiomyomas. The recognition of associated changes is very important because the prognosis is vastly differ when leiomyoma is associated with endometrial changes like endometrial carcinoma and endometrial hyperplasia.

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