



## HISTOPATHOLOGICAL STUDY OF LEIOMYOMA IN HYSTERECTOMY SPECIMENS IN CASES OF ABNORMAL UTERINE BLEEDING: A RETROSPECTIVE STUDY

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### ABSTRACT

**INTRODUCTION:** Leiomyoma is one of the most common benign tumours arising from the uterine smooth muscles which lies as a significant pathology with women suffering from abnormal uterine bleeding

**OBJECTIVE:** The objective of this study was to determine the histopathological changes in hysterectomy specimens with uterine leiomyomas, who have found to have abnormal uterine bleeding; with probable etiology being leiomyoma

**SUBJECTS AND METHODS:** The study was done retrospectively from January 2018 – January 2019. 102 specimens of hysterectomy with underlying etiology of leiomyoma were taken up for the study and analysed.

**RESULTS AND CONCLUSION:** The study was done retrospectively on 102 hysterectomy specimens with underlying etiology of leiomyoma. All the patients had abnormal uterine bleeding following which hysterectomy was performed. Among the 102 hysterectomy cases, the age group of women suffered AUB ranged from 31 years to 80 years. Leiomyoma was more common in the age group 41-50 years and the second most common age group was 30-40 years in our present study. Degenerative changes were also noted during the study which were Hyaline degeneration, calcific degeneration and myxoid degeneration. The commonly seen degenerative change was Hyaline degeneration in our study

**KEYWORDS :** AUB, LEIOMYOMA, HYALINE DEGENERATION

### INTRODUCTION

Uterus is a dynamic reproductive organ of female which is responsive to hormone. There are many benign, malignant tumors and premalignant tumors arise in uterus. Leiomyoma (fibroid) is one of the most common benign tumor of uterine myometrium, leiomyoma affects roughly around 5-20% of women in the reproductive age group. (1). These benign tumors arise from smooth muscle cells of myometrium. The most important underlying pathology of AUB being leiomyoma, adenomyosis, and other causes being pelvic inflammatory diseases, Endometriosis, endometrial hyperplasia and endometrial polyps, and tuberculosis of the uterus and the pelvis may also lead to abnormal uterine bleeding. Abnormal uterine bleeding (AUB) is termed as bleeding from the uterine corpus that is abnormal in duration, amount, regularity. AUB occurring as heavy acyclical or cyclical flow at perimenopausal age is alarming and has to be evaluated. (2)

Abnormal uterine bleeding occurs in 10-15 percent of women from menarche, perimenopausal and menopausal age group. About 13 percent of premenopausal women with a frequent anovulatory cycle develop endometrial cancer or its precursor lesions, hyperplasia with atypia. In cases of excessive uterine bleeding, hysterectomy is the definitive treatment for massive bleeding. In the recent advances, number of minimally invasive surgical options for hysterectomy are available. Large number of patients with leiomyoma are asymptomatic, however some present with symptoms, which depend upon the location and the size of leiomyoma. Leiomyomas can be submucosal, intramural or subserosal. Subserosal leiomyomas which are small remain usually unnoticed. (3)

### METHODOLOGY

Study design- Retrospective study

This study was conducted in the Department of pathology, at ACS Medical College and Research Institute.

102 Hysterectomy cases were studied retrospectively from January 2018 to January 2019. Respectively after applying the inclusion and exclusion criteria were taken up for this study.

### INCLUSION CRITERIA

102 cases from January 2018 to January 2019 women with complaint of AUB for which hysterectomy was performed were included in the study.

Cases which were histologically proven leiomyoma

### EXCLUSION CRITERIA

Malignancies were excluded from the study.

Tissue samples which were insufficient or destroyed. Histopathological findings of the hysterectomy specimens were analysed after

### RESULTS

A total number of 102 hysterectomy analysed in this study

**Table 1: Age Distribution Of Patients According To Histological Lesion Leiomyoma**

AGE GROUP	NO OF PATIENTS
30-40 YEARS	22
41-50 YEARS	45
51-60 YEARS	30
ABOVE 60 YEARS	5
TOTAL	102

**Table 2- Percentage Of Leiomyoma With Respect To Age**

AGE GROUP	PERCENTAGE OF LEIOMYOMA
30-40	21.5%
41-50	44.1%
51-60	29.4%
61-70	3.9%
71-80	0.98%

A majority of our patients With leiomyoma were above 40 years of age (44.1%) , one third of patients were in the age group between 51 to 60 years (29.4%) only a few patients were below 30 years of age

Pie chart 1

Age Distribution Of Leiomyoma With Aub

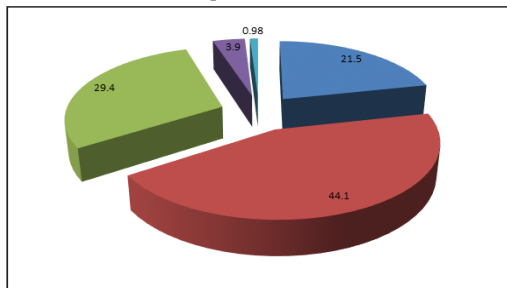


Table 3: Age Wise Distribution Of Degenerative Changes In Leiomyoma Among 102 Cases Of Aub

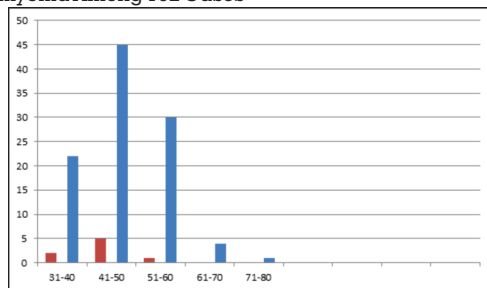
AGE	TOTAL NO OF CASES OF LEIOMYOMA	DEGENERATIVE CHANGES
30-40	22	2
41-50	45	5
51-60	30	1
61-70	4	-
71-80	1	-

Table 4 Distribution Of Degenerative Changes In Leiomyoma Among 102 Cases

DEGENERATION	TOTAL NUMBER OF CASES	PERCENTAGE
HYALINE	6	5.8
CALCIFIC DEGENERATION	1	0.98
MYXOID DEGENERATION	1	0.98

CHART 1

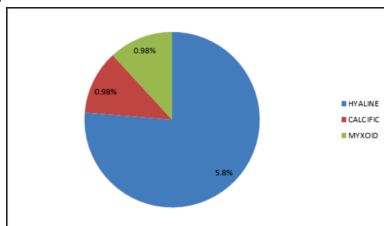
Age Wise Distribution Of Degenerative Changes In Leiomyoma Among 102 Cases



Among 102 cases of leiomyoma hyaline degeneration, calcific degeneration and myxoid degeneration were noted. (table 3) most common degenerative change which was hyaline degeneration accounting to 5.8%

Pie Chart-2

Distribution Of Degenerative Changes In Leiomyoma Among 102 Cases



## DISCUSSION

This is a retrospective study designed to analyse 102 cases of AUB. following which hysterectomy was performed and histologically proven to have uterine leiomyoma.

In the study 102 specimens of fibroid uterus following hysterectomy were evaluated , 45 cases belonged to the age group ranging between 41-50 yrs which accounting to 44 %.which was the majority among the total number of cases included in the study.and the second most common age group was 30-40 years which accounted to 21.5 %.(9,10). Which was collerlated by a study done by begum et al.

Degenerative changes were also noted among the 102 specimens which was hyaline degeneration which accounted to 5.8%, calcific degeneration which accounted to 0.98% and myxoid degeneration which accounted to 0.98% (6,7).which correlated with a study done by Gowri. M. mala et al.

The most common degenerative change found among the 102 cases in the study was hyaline degeneration

## CONCLUSION

AUB can be disturbing and needs surgical intervention if unresponsive to treatment(4). The most common causes of AUB being uterine leiomyomas in the reproductive and perimenapausal age group, Degenerative change most like to occur are hyaline degeneration , myxoid and calcific degeneration(11 ).Hence a detail histopathological and clinical evaluation is required to avoid false alarms of malignancy.

## Abbreviations

AUB- Abnormal uterine bleeding

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