



## RETROSPECTIVE STUDY FOR AGE PREVALENCE OF UTERINE FIBROIDS IN A TERTIARY CARE HOSPITAL

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### ABSTRACT

**Background:** Uterine fibroids, also known as Leiomyoma, are the most common benign neoplasm in the female genital tract and originate from the myometrium's smooth muscle. The cause of the fibroids is unknown, but however, it is estimated to be caused by estrogens and progesterones which proliferate tumor growth. Fibroids are seen to rarely occur before menarche and reduce after menopause. This study was carried out to know the age prevalence of uterine fibroids in a tertiary care hospital of Nagpur

**Methods:** Clinical files and histopathology reports of all patients that operated for symptomatic uterine fibroids or leiomyomas between 2017 to 2021 were obtained from gynaecology department and histopathology department. A total 165 cases were studied.

**Results:** Clinical files and histopathology reports of Orange city hospital Nagpur showed that total 165 patients operated for symptomatic uterine fibroids or leiomyomas between 2017 to 2021. From data it was evident that maximum incidence (69%) was in the 40-50 age group.

**Conclusions:** The age prevalence of fibroids or uterine leiomyomas was maximum in the age group of 40-50 and very less in below 30 and above 60 age groups. These findings were also documented in other studies.

### KEYWORDS : Uterus, Leiomyoma

#### INTRODUCTION

Uterine fibroids, also known as Leiomyoma, are the most common benign neoplasm in the female genital tract. It originates from the myometrium's smooth muscle.(1,2). The cause of the fibroids is unknown, but however, it is estimated to be caused by estrogens and progesterones which proliferate tumor growth.(3,4)

Especially continuous estrogen secretion when uninterrupted by pregnancy and lactation, it is thought to be the most important risk factor for the development of myomatous fibroid (5)

Fibroids are seen to rarely occur before menarche and reduce after menopause. They may be single or multiple and have a negative impact on the reproductive system. They are capable of causing severe morbidity among the women with deterioration of quality of life.(6) It is known that 20% - 50% of women in this age group suffer from this disease. 5.4 to 77% of women have myomas, depending on the study population and races of the population.(7) It is seen that in USA, the prevalence of the uterine fibroids was 60% at the age of 35, which increased to more than 80% by the age of 50 years among the African American women. However, the incidence was observed to be lesser in Caucasian women, where the incidence was 40% by age 35, and almost 70% by age 50.(8) The data was similar in Italy, while the incidence was lower among the Swedish women.(9,10)

The uterine myomas are classified into three categories according to their anatomical location: Submucous fibroids, located below the endometrium, occasionally, they develop pedicles or even completely occupy the uterine cavity; Interstitial / Intramural fibroids, located within the uterine wall; Subserous fibroids, located in the serosal surface of the uterus.

Although the uterine fibroids are diagnosed frequently, this study was carried out to know the age prevalence of uterine fibroids in a tertiary care hospital of Central India (Nagpur).

#### MATERIAL & METHODS

Clinical files and histopathology reports of all patients that operated for symptomatic uterine fibroids or leiomyomas between 2017 to 2021 were obtained from gynaecology department and histopathology department of Orange city hospital, a tertiary care private hospital of Nagpur. A total 165 cases were studied. The files and histopathology reports sorted out according to age groups. Statistical analysis using percentage, frequency distribution was carried out on the data obtained.

#### RESULTS

**Table 1 Showing Frequency Occurrence Of Fibroid Tumors 2017 To 2021**

| Years | Age Group |       |       |       |       | Total |
|-------|-----------|-------|-------|-------|-------|-------|
|       | 20-30     | 30-40 | 40-50 | 50-60 | 60-70 |       |
| 2017  | 1         | 5     | 27    | 6     | 1     | 40    |
| 2018  | 1         | 4     | 35    | 4     | 0     | 44    |
| 2019  | 3         | 3     | 27    | 6     | 1     | 40    |

|                      |       |        |     |        |       |     |
|----------------------|-------|--------|-----|--------|-------|-----|
| 2020                 | 0     | 5      | 8   | 1      | 0     | 14  |
| 2021                 | 1     | 3      | 17  | 6      | 0     | 27  |
| Total                | 6     | 20     | 114 | 23     | 2     | 165 |
| Percentage Frequency | 3.60% | 12.12% | 69% | 13.90% | 1.20% |     |

**Table 2 Year Wise Surgeries Done For Fibroids From 2017 to 2021**

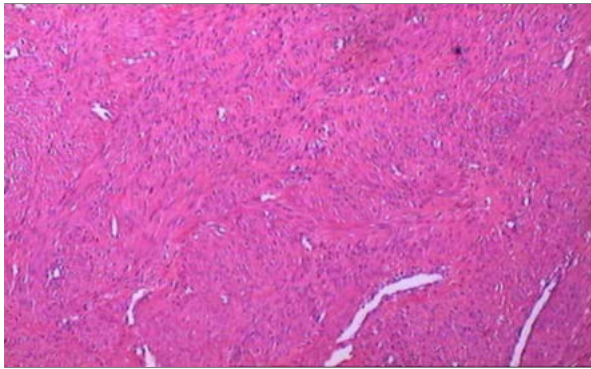
| Years | Cases | %     |
|-------|-------|-------|
| 2017  | 40    | 24.24 |
| 2018  | 44    | 26.67 |
| 2019  | 40    | 24.24 |
| 2020  | 14    | 8.48  |
| 2021  | 27    | 16.36 |

Clinical files and histopathology reports of Orange city hospital showed that total 165 patients operated for symptomatic uterine fibroids or leiomyomas between 2017 to 2021, out of this 6 were in the age group of 20-30, 20 were in the age group of 30-40, 114 were in the age group of 40-50, 23 were in the age group of 50-60, 2 were in the age group of 60-70. The percentage incidence of fibroids among the different age groups was 3.6% for 20-30; 12.12% for 30-40; 69% for 40-50; 13.9% for 50-60 and 1.2% for 60-70 age groups. From above data it was evident that maximum incidence (69%) was in the 40-50 age group.

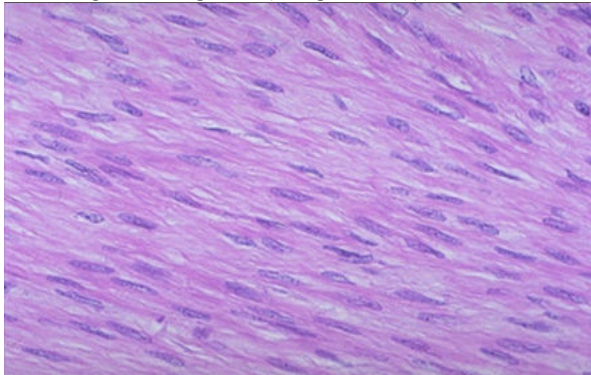


Photograph showing hysterectomy specimen showing a large, solitary leiomyoma in the fundus, distorting the endometrial cavity.

## Uterus, myoma



Microphotograph of leiomyoma showing bundles of smooth muscle cells arranged in whorl pattern. ( Low power X10)



Microphotograph of high power view of leiomyoma showing plump smooth muscle fibres (X45).

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## DISCUSSION

Fibroids occurs in 20-40% of women during reproductive age and 11-19% in perimenopausal age. (5). Uterine fibroids are slow growing benign tumors arising from smooth muscle cells of the myometrium. Slow growing asymptomatic fibroids grow to huge size with minimal menstrual disturbances. (11) A retrospective study was carried out in Orange city hospital of Nagpur to know the age prevalence of fibroids. As shown in Table 1 maximum fibroids or leiomyomas were found in age group of 40-50, and there was very less percentage in the below 30 and above 60 age groups. A similar results were observed in other studies (12,8).

Impact of covid pandemic is clearly visible from the data of Table 2. The surgeries were drastically reduced to 8.4 % of total cases after the first wave in 2020. and then gradually increased to 16.3 % in 2021.

## CONCLUSION

The age prevalence of fibroids or uterine leiomyomas was maximum in the age group of 40-50 and very less in below 30 and above 60 age groups. These findings were documented in other studies (12, 8) A lot of health problems has been attributed to or linked with fibroids in women. Some of these problems include infertility, high Body Mass Index (BMI), abnormal menstruation, recurrent menstruation, etc. Of importance is the fact that younger females are now presenting with fibroids. Cessation of child bearing at an early age, high BMI, is all predisposing factors in the incidence of fibroid tumors. Thus healthy lifestyle should be encouraged and routine check ups conducted so as to detect and possibly treat such tumors early

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