

## Clinicopathological Spectrum and Correlation of Uterine and Cervical Lesions: An 18-Month Observational Study from a Tertiary Care Center in North India

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Conflict of interest: Nil

### Abstract:

**Background:** Uterine and cervical lesions constitute a major proportion of gynecological morbidity. These range from inflammatory and benign conditions to premalignant and malignant neoplasms. Histopathological examination remains the gold standard for definitive diagnosis.

**Objectives:** To evaluate the clinicopathological spectrum of uterine and cervical lesions, analyze their age distribution, and assess clinicopathological correlation.

**Materials and Methods:** This observational study was conducted over 18 months in the Department of Pathology of a tertiary care hospital. A total of 280 uterine and cervical specimens were included. Specimens were fixed in 10% neutral buffered formalin, processed routinely, and stained with hematoxylin and eosin. Diagnoses were categorized into non-neoplastic, benign neoplastic, premalignant, and malignant lesions. Data were analyzed using descriptive statistics. Institutional Ethics Committee approval was obtained.

**Results:** The majority of patients were in the 41–50-year age group (33.93%). Abdominal pain (41.07%) and abnormal uterine bleeding (37.14%) were the most common complaints. Chronic non-specific cervicitis (52.86%) was the most common histopathological finding, followed by leiomyoma (27.50%). Squamous cell carcinoma constituted 5.36% of cases.

**Conclusion:** Inflammatory and benign lesions predominate among uterine and cervical pathologies. Histopathological examination remains indispensable for accurate diagnosis and early detection of premalignant and malignant lesions.

**Keywords:** Uterus; Cervix; Leiomyoma; Chronic cervicitis; Squamous cell carcinoma; Histopathology.

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### Introduction

Uterine and cervical lesions represent a broad spectrum of pathological conditions encountered in gynecological practice. Leiomyoma is the most common benign tumor of the female genital tract, affecting up to 20–40% of women in reproductive age. Chronic cervicitis is frequently observed in hysterectomy specimens. Despite advances in screening, cervical carcinoma remains a major public health burden.

### Materials and Methods

This observational study was conducted over 18 months. Inclusion criteria comprised all hysterectomy and cervical/endometrial biopsy specimens with adequate clinical details. Inadequate or autolyzed specimens were excluded. Gross

examination was performed systematically. Sections were cut at 3–5  $\mu$ m thickness and stained with hematoxylin and eosin. Data were tabulated and analyzed using descriptive statistics.

### Results

A total of 280 specimens were evaluated. Peak incidence was observed in the 41–50-year age group. Abdominal pain and abnormal uterine bleeding were the most common presenting complaints. Chronic non-specific cervicitis was the most frequent diagnosis, followed by leiomyoma. Squamous cell carcinoma was the most common malignancy identified.

**Table 1: Age-wise Distribution**

Age Group (Years)	Number of Cases
21-30	24
31-40	68
41-50	95
51-60	63
61-70	30

**Table 2: Presenting Complaints**

Complaint	Number of Cases
Abdominal Pain	115
AUB	104
Leucorrhoea	30
PMB	18
Abdominal Mass	13

**Table 3: Histopathological Diagnosis**

Diagnosis	Number of Cases
CNSC	148
Leiomyoma	77
Endometrial Hyperplasia	12
Cervical Polyp	15
SCC	15

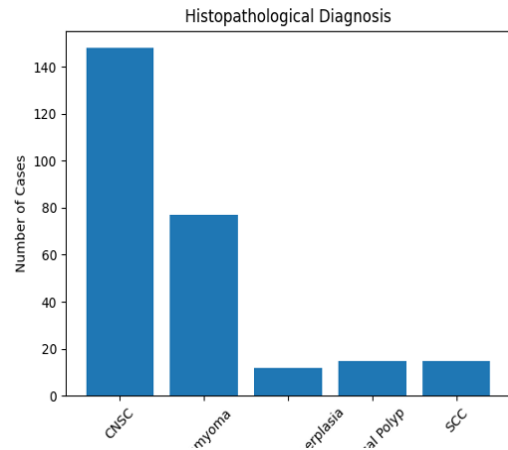


Figure 3: Histopathological Diagnosis

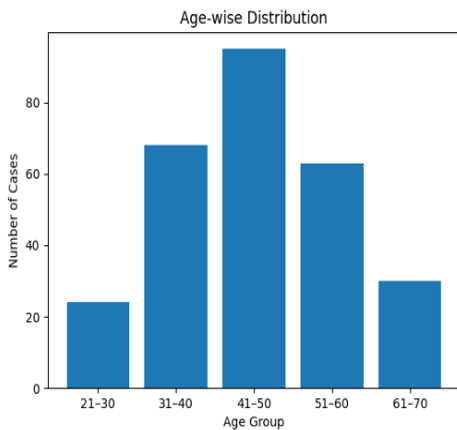


Figure 1: Age-wise Distribution

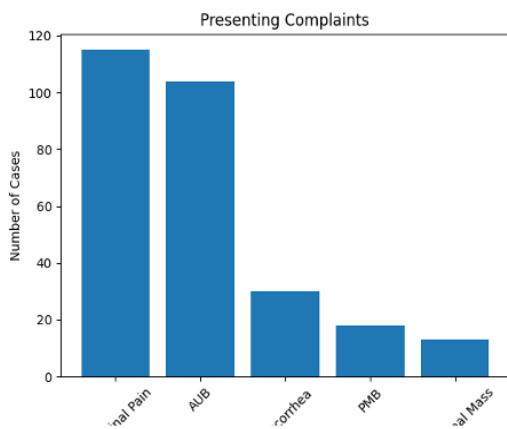


Figure 2: Presenting Complaints



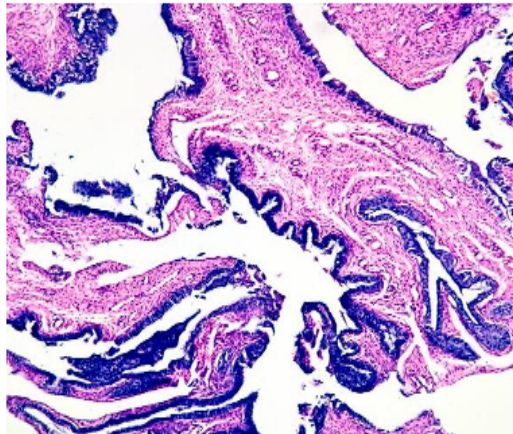
Figure 1 : Gross photograph of uterus and cervix with multiple Fibroids



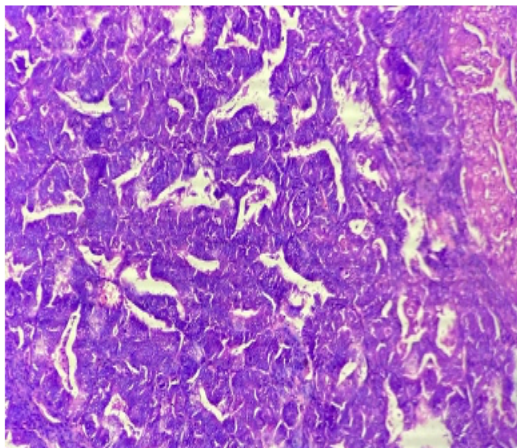
Figure 2: Gross photo of cut section of uterus showing grey white friable growth in endometrial cavity



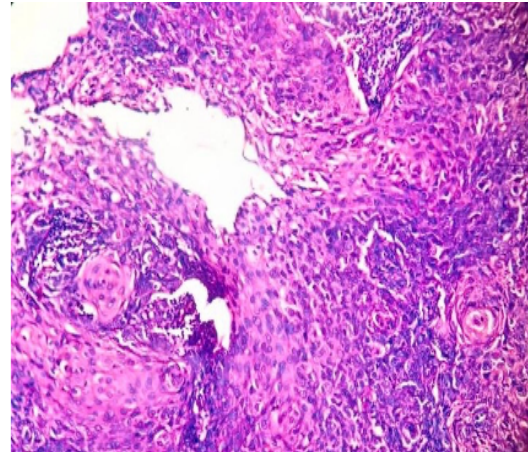
**Figure 3: Gross photo of cut section of uterus and cervix showing grey brown irregular growth in cervical lumen**



**Figure 4: Microphotograph of Papillary endocervicitis. (10X, H&E)**



**Figure 5: Photomicrograph of endometrial carcinoma showing tumor shows back to back glands. (10x, H&E)**



**Figure 6: Photomicrograph of Squamous cell carcinoma showing tumor atypical polygonal cells with intercellular bridging and keratinisation and keratin pearls. (10x, H&E)**

#### Discussion

The predominance of lesions in the perimenopausal age group aligns with previous studies. Leiomyoma remains a leading indication for hysterectomy. Chronic inflammatory cervical lesions contribute significantly to morbidity. Although malignant lesions were fewer, early histopathological detection remains critical.

#### Conclusion

Uterine and cervical lesions predominantly affect women in the perimenopausal age group. Benign and inflammatory lesions constitute the majority of cases. Histopathological evaluation is essential for definitive diagnosis and management.

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