

# ORIGINAL ARTICLE

## Assessment of uterus specimens- A Clinicopathological study

Paritosh Mohan<sup>1</sup>, Sherry Kapur<sup>2</sup>, Amit Varshney<sup>3</sup>

<sup>1</sup>Associate Professor, Department of General Surgery, Major S D Singh Medical College, Farukhabad, Uttar Pradesh

<sup>2</sup>Assistant Professor, Department of Pathology, Major S D Singh Medical College, Farukhabad, Uttar Pradesh

<sup>3</sup>Assistant Professor, Department of General Medicine, Sakshi Medical College, Guna, Madhya Pradesh

### ABSTRACT:

**Background:** The uterus is prone to develop several non-neoplastic and neoplastic conditions during the life time of a woman. The present study was conducted to assess uterus specimens histopathologically. **Materials & Methods:** 58 uterus specimens were stained by the histotechnicians by routine stain of hematoxylin and eosin. **Results:** Age group 20-30 years had 3, 30-40 years had 16, 40-50 years had 34 and >50 years had 5 cases. Histopathological findings were endometrial hyperplasia in 3, atrophic endometrium in 5, endometritis in 8, endometrial hyperplasia in 1, adenomyosis in 2, benign leiomyoma in 10, chronic myometritis in 8, chronic cervicitis in 6, uterovaginal prolapse in 4, squamous cell carcinoma in 7 and inflammatory endocervical polyp in 3 cases. The difference was significant ( $P < 0.05$ ). **Conclusion:** Most common uterus lesion was benign leiomyoma and chronic myometritis.

**Key words:** Chronic myometritis, Squamous cell carcinoma, Uterovaginal prolapse

**Corresponding author:** Dr. Sherry Kapur, Assistant Professor, Department of Pathology, Major S D Singh Medical College, Farukhabad, Uttar Pradesh, India

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### INTRODUCTION

Uterus, a vital reproductive organ is subjected to many benign and malignant diseases. Many treatment options are available including medical and conservative surgical but hysterectomy still remains the most common gynaecological procedure performed worldwide. The procedure is not well embraced in developing countries, thus, the clinical indications for the procedure should be justifiable, age and parity of the women.<sup>1</sup>

The uterus is prone to develop several non-neoplastic and neoplastic conditions during the life time of a woman. The uterus consists of endometrium and myometrium which is under the influence of different hormones periodically. Many studies have shown many different types of lesions in the ovaries and fallopian tubes. The cervix is prone to many non-neoplastic and neoplastic conditions which are mostly seen in the reproductive age group.<sup>2</sup> All these diseases are seen across all age groups and contribute significantly to increased morbidity and mortality amongst women. Most common complaints presented are per vaginal bleeding, vaginal discharge, pain abdomen, irregular menstruation, postmenopausal bleeding, mass per abdomen, something coming out of vagina etc. Many treatment options are available including medical and conservative surgical treatments but hysterectomy remains one of the most preferred method to manage gynecological disorders.<sup>3</sup>

Histological characteristics of endometrial biopsy material as assessed by light microscopy remain the diagnostic standard for the clinical diagnosis of endometrial pathology. Indeed, the initial diagnosis is made by endometrial biopsy or by curettage, which in itself may be therapeutic. Conversely, the biopsy or curettage may not sample the entire endometrium, and the areas of greatest histological or cytological severity may thus escape histological identification.<sup>4</sup> The present study was conducted to assess uterus specimens histopathologically.

### MATERIALS & METHODS

The present study was conducted among 58 uterus specimens obtained in department of general pathology following surgery in general surgery department. All were informed regarding the study and their consent was obtained.

Data such as name, age, etc. was recorded. The specimens were grossed by the pathologists; the tissues underwent processing in the tissue processor overnight. Blocks were made and sections were cut into 4 micron thickness in the microtome. These sections were stained by the Histotechnicians by routine stain of hematoxylin and eosin. Each slide was then meticulously examined by Pathologists. Results thus obtained was subjected to statistical analysis. P value less than 0.05 was considered significant.

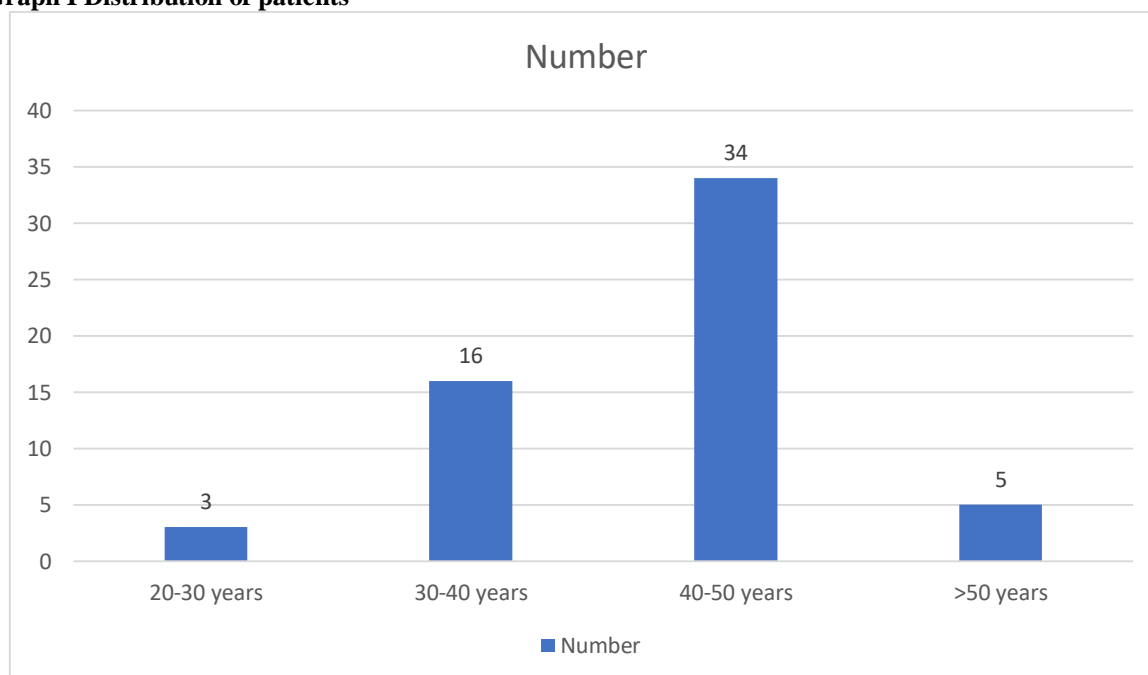
**RESULTS**

**Table I Distribution of patients**

Age group (Years)	Number	P value
20-30 years	3	0.01
30-40 years	16	
40-50 years	34	
>50 years	5	

Table I, graph I shows that age group 20-30 years had 3, 30-40 years had 16, 40-50 years had 34 and >50 years had 5 cases. The difference was significant (P< 0.05).

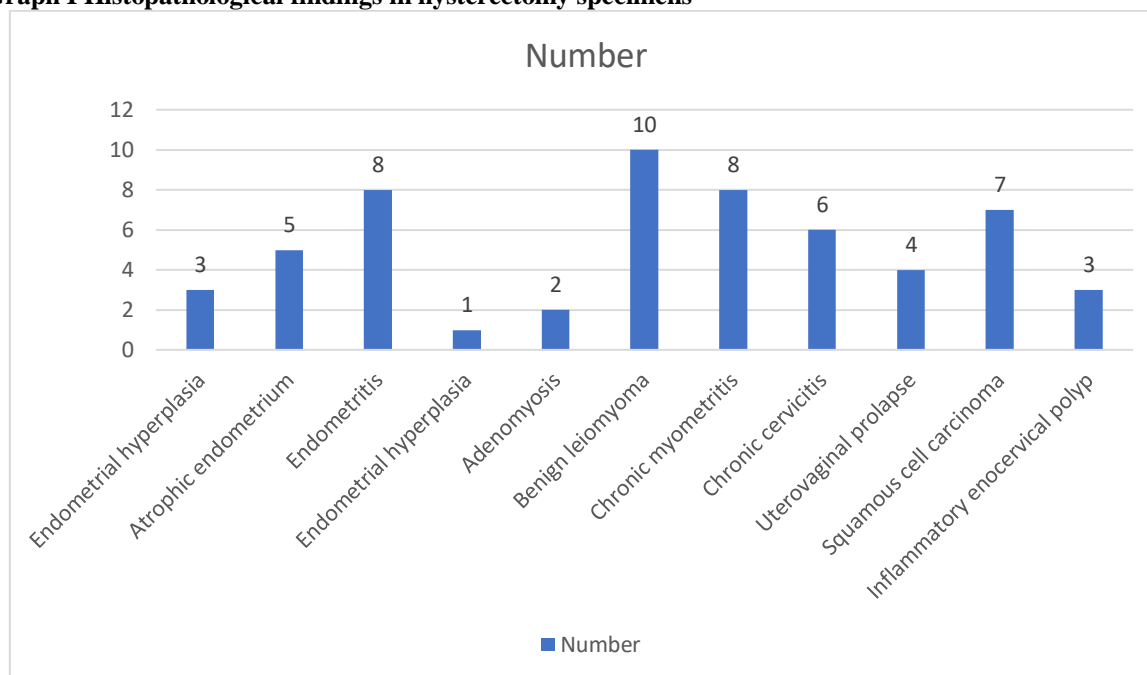
**Graph I Distribution of patients**



**Table II Histopathological findings in hysterectomy specimens**

Histopathological findings	Number	P value
Endometrial hyperplasia	3	0.01
Atrophic endometrium	5	
Endometritis	8	
Endometrial hyperplasia	1	
Adenomyosis	2	
Benign leiomyoma	10	
Chronic myometritis	8	
Chronic cervicitis	6	
Uterovaginal prolapse	4	
Squamous cell carcinoma	7	
Inflammatory encocervical polyp	3	

Table III, graph II shows that histopathological findings were endometrial hyperplasia in 3, atrophic endometrium in 5, endometritis in 8, endometrial hyperplasia in 1, adenomyosis in 2, benign leiomyoma in 10, chronic myometritis in 8, chronic cervicitis in 6, uterovaginal prolapse in 4, squamous cell carcinoma in 7 and inflammatory encocervical polyp in 3 cases. The difference was significant (P< 0.05).

**Graph I Histopathological findings in hysterectomy specimens**

## DISCUSSION

The female genital tract includes the uterine corpus and cervix, the uterine corpus consists of endometrium and myometrium. Uterus, a vital reproductive organ is subjected to many benign and malignant pathologies.<sup>5</sup> The uterine corpus under hormonal influence is, denuded monthly of its endometrial mucosa. The lesions of the uterine corpus and cervix account for most patient visits to gynaecologists. Many treatment are available nowadays including medical and conservative surgical procedures but hysterectomy remains the most preferred method to manage gynaecological disorders.<sup>6</sup> Hysterectomy is the removal of the uterus and it is the most common gynecological procedure performed in the females worldwide, as it is affected by various nonneoplastic and neoplastic conditions during the life time of a woman. It should be performed when the risk of preserving the uterus is greater than it's removal or when the disabling symptoms for which there is no successful medical treatment.<sup>7</sup>

The classification system used by the World Health Organization (WHO) and the International Society of Gynecological Pathologists designates four different types with varying malignant potential.<sup>8</sup> Hyperplasias are classified as simple or complex based on the absence or presence of architectural abnormalities such as glandular complexity and crowding. Most important, hyperplasias are further designated as atypical if they demonstrate cytologic (i.e., nuclear) atypia.<sup>9</sup> Only atypical endometrial hyperplasias are clearly associated with the subsequent development of adenocarcinoma. If left untreated, approximately 8% of patient with simple atypical hyperplasia will progress to carcinoma, whereas the progression rate in

women with complex atypical hyperplasia is almost 30% in one study, and as high as 52% in another.<sup>10</sup> The present study was conducted to assess uterus specimens histopathologically.

In present study, age group 20-30 years had 3, 30-40 years had 16, 40-50 years had 34 and >50 years had 5 cases. Verma et al<sup>11</sup> assessed the histopathological features of varied uterine lesions, their profile and distribution of different lesions in relation of age. A total of 3576 histopathology samples were received in this period. There were 1173 gynaecology samples during this period out of which 22% (261 cases) were that of hysterectomy. Histopathology diagnosis showed leiomyoma in 48.6% (127 cases), adenomyosis was seen in 10.3% (27 cases), endometrioid adenocarcinoma was seen in 1.14% (3 cases).

We observed that histopathological findings were endometrial hyperplasia in 3, atrophic endometrium in 5, endometritis in 8, endometrial hyperplasia in 1, adenomyosis in 2, benign leiomyoma in 10, chronic myometritis in 8, chronic cervicitis in 6, uterovaginal prolapse in 4, squamous cell carcinoma in 7 and inflammatory endocervical polyp in 3 cases. Baral et al<sup>12</sup> found that a total of 300 specimens were analyzed. In the group of patients less than 40 years of age, 73 (50%) were normal, 34 (23%) had abnormal physiologic changes and 13 (9%) had pregnancy related complications and benign changes. In the age group between 40 – 55 years, abnormal physiological changes, benign conditions and normal physiological changes were 45 (32%), 41 (29%) and 37 (26%) respectively. In the age group > 55 years, there were 3 (21%) malignant and 3 (21%) benign conditions. There were 5 (36%) unsatisfactory samples in this age group.

## CONCLUSION

Authors found that most common uterus lesion was benign leiomyoma and chronic myometritis.

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