



## HISTOPATHOLOGICAL ANALYSIS OF UTERINE AND CERVICAL LESIONS IN HYSTERECTOMY SPECIMENS IN GMC JAMMU- A ONE YEAR STUDY

### Pathology

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### ABSTRACT

**Introduction-** Hysterectomy is the most commonly performed gynaecological surgery worldwide and prevalence of hysterectomy varies from country to country, region to region. The objective of this study was to evaluate lesions seen in hysterectomy specimen over a period of 1 year from may 2016 to june 2017 retrospectively.

**Result-** Common type of hysterectomy cases seen were that of Abdominal hysterectomy. Peak age of hysterectomy was seen in age group 41-50 years. Leiomyoma was the most common histopathological lesion seen. Chronic non specific cervicitis was commonest lesion seen in cervix. Menorrhagia was the most common presenting complain.

**Conclusion-** Hysterectomy is the most common surgery performed in gynaecological practice. A wide range of lesion were noted on histopathological examination of these specimen.

### KEYWORDS

Hysterectomy, histopathology, leiomyoma.

#### Introduction

Female genital tract includes the uterine corpus and cervix. The uterus consist of endometrium and myometrium. During child bearing age the normal endometrium undergoes a series of sequential changes in the course of ovulatory cycle that prepares it to receive ovum. If ovum is not fertilized, the proliferative endometrium cast off by menstruation. Normal endometrial cycle is associated with changes in both endometrial glands and stroma (1). The uterus is prone to develop several non neoplastic and neoplastic conditions during the lifetime of a woman. Hysterectomy is the most commonly performed gynaecological surgery worldwide and prevalence of hysterectomy varies from country to country, region to region. It may be abdominal, vaginal or laparoscopic. It helps in adequate sampling of the required and suspected areas and thus help in diagnosis of various lesions without any error of sampling.

**Aim-** This study was done to study various histopathological findings seen in uterus and cervix in hysterectomy specimen.

**Material and Method-** It was a retrospective study. During the study period, a total of 1200 gynaecological specimen were received in histopathology section of department of pathology of GMC Jammu. The specimen were fixed in 10% buffered formalin and then grossed by pathologist. Tissue went processing overnight in the tissue processor. Blocks were made and sections were cut in to 4 micron thickness in the microtome. These sections were then stained with haematoxylin and Eosin. Inclusion criteria were all hysterectomy specimen were included in the study. Exclusion criteria were specimens with incomplete requisition form and subtotal hysterectomy.

#### Results

Total of 600 hysterectomy specimens were received in laboratory during the study period. The hysterectomies were distributed over a wide range of 21 to more than 70 years. Of these 320 cases were seen in age group of 41-50 years. Second age peak was seen in the age group of 31-40 years with least cases recorded above 70 years. The most common type of hysterectomy was total abdominal hysterectomy (420 cases) followed by vaginal hysterectomy (180 cases).

Out of 600 cases, 183 showed endometrial pathology and in rest of cases endometrium was normal. The most common endometrial pathology was Atrophic endometrium seen in 66 cases. It was followed by endometrial hyperplasia (58 cases), endometrial polyp (29 cases), Chronic endometritis (8 cases), Disorder Proliferative phase (8 cases), Hormonal Imbalance (8 cases), Carcinoma Endometrium (4 cases) and Inactive endometrium (2 cases).

Among the 58 cases of endometrial hyperplasia, simple hyperplasia was the commonest (45 cases) followed by complex hyperplasia

without atypia (9 cases) and complex hyperplasia with atypia (4 cases). Cases of carcinoma endometrium were histologically found to be two cases each of Serous papillary carcinoma Stage II and Endometrioid adenocarcinoma Stage Ib (Figo).

Out of 600 cases, 385 cases showed myometrial pathology. Leiomyoma was the most common histopathological lesion found in myometrium (242 cases). It was followed by Adenomyosis (98 cases), adenomyosis with Leiomyoma (44 cases) and one case of Leiomyosarcoma.

Among the 600 cases, lesions of cervix were seen in 246 cases. Chronic non specific Cervicitis (209 cases) was the commonest histopathological finding. It was followed by Endocervical polyp (23 cases), 6 cases each of chronic papillary endocervicitis and squamous metaplasia. Only 2 cases of Carcinoma cervix were seen. These were squamous cell carcinomas moderately differentiated type.

The most common clinical indication of hysterectomy was Abnormal uterine bleeding (66%) followed by leiomyoma (40%), Uterovaginal prolapse (20%) and uterine malignancies (1.5%) were found to be the least. Vaginal hysterectomy were mainly done for Uterovaginal prolapse.

#### Discussion

Total of 600 hysterectomy specimens were received in laboratory during the study period. The hysterectomies were distributed over a wide range of 21 to more than 70 years. Of these 320 cases were seen in age group of 41-50 years. This is similar to study done by Ramchandaran T et al (2) and Ajmera et al (3).

Second age peak was seen in the age group of 31-40 years with least cases recorded above 70 years. Dhuliya V et al (4) observed 48% cases in age group of 41-50 years followed by second peak in age group of 31-40 years constituting 27.33% of cases with none case recorded in age above 70 years in study done by him comparable to our study.

The most common type of hysterectomy was Total abdominal hysterectomy with bilateral salpingoopherectomy (420 cases) followed by vaginal hysterectomy (180 cases). Domblae V et al (5) in his study has shown 69.6% cases were of abdominal hysterectomy and 30.4% cases were of vaginal hysterectomy.

Out of 600 cases, 183 showed endometrial pathology and in rest of cases endometrium was within normal histological limits. The most common endometrial pathology was Atrophic endometrium seen in 66 cases, majority of these patients were in age group of 40-60 years. It was followed by endometrial hyperplasia (58 cases), endometrial polyp (29 cases), Chronic endometritis (8 cases), Disorder

Proliferative phase(8 cases ), Hormonal Imbalance (8 cases), Carcinoma Endometrium ( 4 cases ) and Inactive endometrium( 2 cases ). Rather et al ( 6 ) found atrophic endometrium in 5.44% cases followed by endometrial hyperplasia( 4.43% ) cases , endometrial polyp (2.43%) cases, Endometritis (1.57%) cases, with 1.14%cases of disordered proliferative endometrium and 0.42% cases of inactive endometrium comparable to that seen in our study. Baral R et al ( 7 ) also found similar pattern in his study.

Among the 58 cases of endometrial hyperplasia, simple hyperplasia was the commonest ( 45 cases) followed by complex hyperplasia without atypia ( 9 cases ) and complex hyperplasia with atypia( 4 cases). Forae GD et al(8 ) found 28 cases of simple hyperplasia followed by 11 cases of complex hyperplasia in his study similar to that seen in present study. Ojeda et al (9) also observed the similar pattern . Cases of carcinoma endometrium were histologically found to be Serous papillary carcinoma Stage II and Endometroid adenocarcinoma Stage Ib (Figo)2 cases each.

Out of 600 cases, 385 cases showed myometrial pathology . Leiomyoma was the most common histopathological lesion found in myometrium (242 cases). Ranabhat SK et al ( 10 ) had distribution of fibroid being 30.3% in his study as seen in our study.

It was followed by Adenomyosis ( 98 cases), adenomyosis with Leiomyoma ( 44 cases) and one case of Leiomyosarcoma. Similar to that seen in study done by Patil HA et al(11) and Rather et al ( 6 ) .

Among the 600 cases, lesions of cervix were seen in 246 cases. Chronic non specific Cervicitis ( 209 cases) was the commonest histopathological finding . Saravanan S et al ( 12 ) and Krishna T et al ( 13) found similar results. It was followed by Endocervical polyp (23 cases) , 6 cases each of chronic papillary endocervicitis and squamous metaplasia. Only 2 cases of Carcinoma cervix were seen These were squamous cell carcinomas moderately differentiated type.

The most common clinical indication of hysterectomy was Abnormal uterine bleeding (66%) followed by leiomyoma ( 40% ), Uterovaginal prolapse (20%) and uterine malignancies ( 1.5% ) were found to be the least . Shreedhar V et al (14) and Karthikeyan et al( 15) observed abnormal uterine bleeding to be the most common presenting symptom seen in 42% and 62.5% of cases respectively as seen in our study.

**Conclusion-** Leiomyoma and Adenomyosis are the most common uterine pathology and chronic cervicitis is most common in cervix in hysterectomy specimens. All hysterectomy specimen should be sent for histopathological examination regardless of the preoperative microscopic assessment, especially in malignant disease.

Table 1 Histopathological Distribution of lesions of Endometrium

Histopathological diagnosis	No. of cases (n)
Endometrial atrophy	66
Simple hyperplasia	45
Complex hyperplasia without atypia	9
Complex hyperplasia with atypia	4
Chronic Endometritis	8
Endometrial Polyp	29
Disordered proliferative phase	8
Inactive endometrium	2
Hormonal effect	8
Endometrial Adenocarcinoma	4
Normal	417
Total	600

Table 2 Histopathological Distribution of lesions of Myometrium

Histopathological diagnosis	Number
Leiomyoma	242
Adenomyosis	98
Adenomyosis with Leiomyoma	44
Leiomyosarcoma	1
Total	600

Table 3 Histopathological Distribution of lesions of Cervix

Histopathological diagnosis	No. of cases (n)
Chronic non specific cervicitis	209
Cervical Polyp	23
Chronic papillary endocervicitis	6
Squamous Metaplasia	6
Carcinoma cervix	2
Normal	354
Total	600

Table 4 Age distribution of Hysterectomy specimen

Age (years)	No. of cases
21-30	30
31-40	170
41-50	320
51-60	50
61-70	28
>70	2
Total	600

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