Histopathological Study of Uterine and Cervical Lesion in Hysterectomy Specimens.

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Abstract:

Background: The adult nulliparous uterus is a hollow, pear shaped organ that weights 40-80 grams. It is divided into the Cervix and Corpus. The uterus being a vital reproductive and hormone-responsive organ, is subjected to a variety of physiological changes and benign and malignant disorders. Hysterectomy is the most common major gynecological procedure in the world. It can be done through either abdominal or vaginal route. **Aims and objectives:** The present study was aimed at detailed histopathological evaluation of all lesion of hysterectomy specimen **Material and methods:** This was a retrospective study of the gross and histopathological findings of uterus and cervix in 150 hysterectomy specimens received in the pathology department, B. J. Medical college, Ahmedabad during the period from July to December 2015.The hysterectomy specimens received were fixed in 10% formalin for 24 hours, were examined grossly and necessary sections were obtained. The tissue pieces were then processed in automated tissue processor , well labeled paraffin blocks were made. Sections were cut with the help of microtome and were stained routinely by Hematoxylin & Eosin stain and special stains wherever necessary. Sections were examined with the help of light microscopy. **Results:** Peak age group of hysterectomy was 41-50 years. Most common pathology found was uterine leiomyomas in 55 cases and next to it was adenomyosis. In cervix most common finding was chronic cervicitis in 116 cases. **Conclusion:** Most common benign lesion in uterus is leiomyoma followed by adenomyosis and in cervix it is chronic cervicitis in hysterectomy specimens received in our department.

Key Words: Hysterectomy, Histopathology of Uterus and Cervix, Leiomyoma

Introduction:

The female genital tract includes the uterine corpus and cervix. The uterus consists of the endometrium and myometrium. During child bearing age the normal endometrium undergoes a series of sequential changes in the course of the ovulatory cycle that prepare it to receive ovum. If the ovum is not fertilized, the proliferative endometrium casts off by menstruation. The normal endometrial cycle is associated with changes in both endometrial glands and stroma.[1] Hysterectomy is commonly performed gynecological surgical procedure. This helps in adequate sampling of required and suspected

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areas thus helps in diagnosis of various lesions of uterus and cervix without any error. This study is aimed to study gross and histopathological findings in uterus and cervix of hysterectomy specimens received in department of histopathology at tertiary care hospital.

Material and method:

This is retrospective study of gross and histopathological findings in hysterectomy specimens received at department of pathology at tertiary care hospital over a period of 6 months from July to December 2015.

The hysterectomy specimens were collected in formalin with properly filled request forms containing name, age, complains. Biopsy specimen properly labeled and recorded. After 24 hours of fixation, the specimen was examined grossly for size, wall thickness and any mass present and necessary sections were taken from uterus that includes endometrium, myometrium and serosa. Additional bits were taken depending on pathology present if any.

Minimum 2 bits were taken from cervix that includes endocervix and ectocervix from both lips of cervix. The tissue sections were then processed in automatic tissue processor and paraffin blocks were made and care has been taken for proper labeling. Sections were cut with help of microtome and stained with hematoxylin and eosin stains and special stains were used whenever needed.

Then the sections were examined by light microscopy and results are obtained.

Results:

Total of 150 cases were studied in study periods. Age of patient ranged from 27 to 60 years. Vaginal bleeding and mass per vaginum commonest symptoms. Peak age for incidence for hysterectomy is 5^{th} decade of life.

Table-1 Age distribution of hysterectomy specimens in Uterine and Cervical pathologies

Sr no	Age group in years	No of cases	Percentage
1	<= 30	08	05.33%
2	31-40	41	27.33%
3	41-50	72	48.00%
4	51-60	25	16.67%
5	61-70	04	02.67%
6	Total	150	100%

Table -2 Uterine Lesions in Hysterectomy Specimen

Sr No	Uterine lesion	No of cases	Percentage
1	Leiomyoma	55	36.67%
2	Adenomyosis	38	25.33%
3	Leiomyoma + adenomyosis	05	03.33%
4	Hyperplasia	25	16.67%
5	Atrophy/Cystic atrophy	24	16.00%
6	Carcinoma Endometrium	02	01.33%
7	Stromal sarcoma	01	00.67%
8	Total	150	100%

The common histopathological findings are leiomyoma followed by adenomyosis, hyperplasia. Malignant tumors were endometrial adenocarcinoma in 2 cases and stromal sarcoma 1 case. On histomorphological study of cervical lesion Nonspecific cervicitis was most common finding.

Image 1- Adenomyosis [10X]

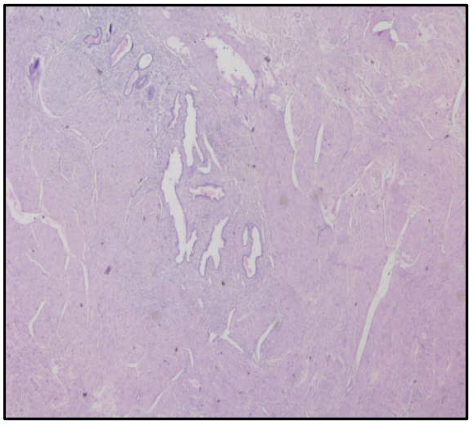

Image 2- Leiomyoma of Uterus [10X]

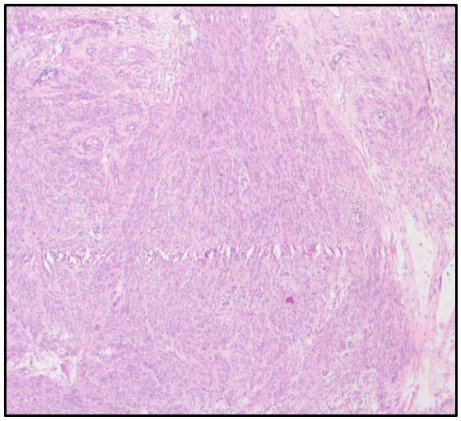

Image 3- Endometrial Carcinoma [10X]

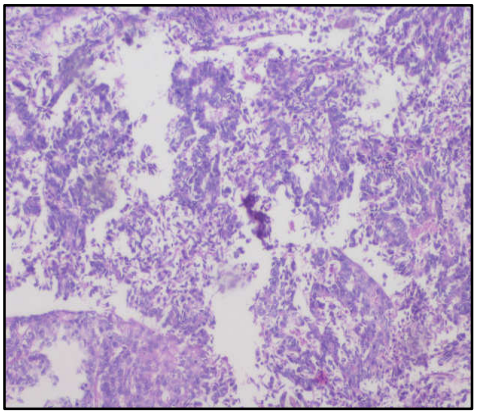

Image 4- Endometrial Carcinoma [40X]

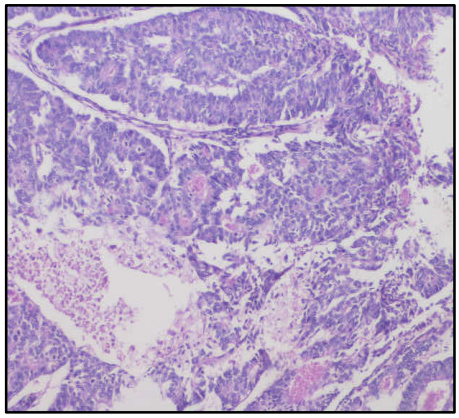

Table- 3 Histopathological Findings in Cervix

Sr No	Cervical changes	No of cases	Percentage
1	Chronic nonspecific Cervicitis	116	77.33%
2	Chronic papillary endocervicitis	07	04.67%
3	Ca Cervix	01	00.67%
4	Normal	26	17.33%
5	Total	150	100%

Discussion:

Hysterectomy is commonly performed surgical procedure in gynecology in perimenopausal age throughout the world.[2] Histopathological examination of uterine surgical biopsies have both diagnostic and therapeutic significance.[3] This study was conducted to analyse the histopathology of lesion in hysterectomy specimen received at our department. In present study most common age group involved is 41-50 years that is similar to Rather et al.[4]

Leiomyomas of uterus are extremely common neoplasm. Amongst the uterine myometrial lesion Leiomyoma is most common finding which is similar to other studies.[5,6] Adenomyosis is second common pathology that is similar to other studies. [3,7] Amongst endometrial pathology Endometrial hyperplasia is common finding seen in 16.67% of cases that is similar to study by Ranabhat et al.[8]

Chronic cervicitis is an extremely common condition in adult females, at least at microscopic level. It affects preferentially squamocolumnar junction and endocervix.[1] Among the cervical lesion chronic non specific cervicitis is most common finding which is comparable to that reported by Talukder.[9]

One case of carcinoma of cervix is seen which is similar to Ranabhat et al.[8]

Conclusion:

Leiomyoma and adenomyosis are most common uterine pathology and chronic cervicitis is most common in cervix in hysterectomy specimens.

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