Histopathological spectrum of Uterine and Cervical Lesions in Hysterectomy specimens.

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Abstract

**Background:** Female reproductive system has been affected by various abnormalities and diseases and hence has been the subject of interest and the basis for the gynaecological practice. Uterus being a vital reproductive and hormone responsive organ, is prone to develop several non-neoplastic and neoplastic conditions during the lifetime of a woman. Hysterectomy is the most common major gynaecological procedure in the world. It can be done through either abdominal or vaginal route.

**Aim:** The present study was aimed at detailed histopathological evaluation of all lesions of hysterectomy specimens.

**Materials 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, Sri Siddhartha Medical College, Tumkur during the period from October 2017 to June 2018. 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 and well labelled paraffin blocks were made. Sections were cut with the help of microtome and were cut with the help of microtome and were stained routinely by Hematoxylin & Eosin stain. Sections were examined with the help of light microscopy.
Results: Peak age of hysterectomy was 41 to 50 years. Most common pathology found was uterine leiomyoma in 52 cases and next to it was adenomyosis. In cervix most common finding was chronic cervicitis in 95 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: Histopathology, uterine lesion, hysterectomy.

Introduction

Hysterectomy is the removal of uterus and it is the most common gynaecological operation done in females world-wide. It is considered as definitive treatment for various benign pelvic pathologies like leiomyoma, dysfunctional uterine bleeding (DUB), chronic pelvic pain, endometriosis, adenomyosis, uterovaginal prolapsed and in some cases of genital tract malignancies. (1)

Histopathological analysis of the hysterectomy specimens is mandatory for diagnostic purposes and to assess the pattern of lesions common in uterus and adnexa in a particular population. The following study was done to assess and analyse the histopathology of the hysterectomy specimens in a tertiary care rural teaching hospital.

Materials and methods

This is a retrospective study consisted of 150 cases of hysterectomy specimens received in the department of Pathology, Sri Siddhartha Medical College, Tumkur, Karnataka state. Total duration of the study was 9 months, i.e., from October 2017 to June 2018. The specimens were fixed in 10% buffered formalin, large specimens were cut & left for fixation. Gross features were recorded and multiple representative bits were processed and paraffin blocks made, sections were then stained with Hematoxylin & Eosin (H&E) stain. After thorough microscopic examination, histopathological diagnosis was given. Inclusion criteria were all the hysterectomy specimens were included in the study. Exclusion criteria were specimens with incomplete requisition form & subtotal hysterectomy.

Results

Total of 150 cases were studied in the study period. Age of the patient ranged from 28 to 80 years (Table1). Vaginal bleeding & mass per vagina were the commonest symptoms. Peak age for hysterectomy was 5th decade of life.

The common histopathological findings in uterus were leiomyoma followed by adenomyosis & cystic atrophy (Table2). Malignant tumour was squamous cell carcinoma of endometrium in one case. Chronic nonspecific cervicitis was most common finding in cervix (Table2).

Discussion

Hysterectomy is commonly performed surgical procedure in perimenopausal age throughout the world (2). Histopathological examination of uterine surgical biopsies have both diagnostic & therapeutic significance (3). This study was conducted to study the histopathology of lesions in hysterectomy specimens received at our department. In the present study most common age group involved is 45 to 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). Adenomyosis is the second common pathology that is similar to other studies (3). Amongst endometrial pathology atrophic endometrium is the common finding in this study, while endometrial hyperplasia was common finding seen in other studies (2).
Chronic cervicitis is an extremely common condition in adult females. It affects preferentially squamo-columnar junction and endocervix\(^{(6)}\). Among the cervical lesions chronic nonspecific cervicitis is the most common finding which is comparable to other study \(^{(7)}\). One case of carcinoma cervix is seen which is similar to the study by Dhuliya et al \(^{(2)}\).

**Conclusion**

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

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Table 1  Age distribution of hysterectomy specimens in uterine and cervical pathologies.

| Sl no. | Age group in years | No. of cases | Percentage |
|--------|--------------------|--------------|------------|
| 1      | <=30               | 02           | 1.33%      |
| 2      | 31-40              | 33           | 22.00%     |
| 3      | 41-50              | 79           | 52.67%     |
| 4      | 51-60              | 25           | 16.70%     |
| 5      | 61-70              | 10           | 6.66%      |
| 6      | 71-80              | 01           | 0.66%      |
| Total  |                    | 150          | 100%       |

Table 2  Uterine lesions in hysterectomy specimens

| Sl.no | Uterine lesion                  | No.of cases | Percentage |
|-------|---------------------------------|-------------|------------|
| 1     | Leiomyoma                       | 52          | 34.67%     |
| 2     | Leiomyoma + adenomyosis         | 15          | 10.00%     |
| 3     | Adenomyosis                     | 40          | 26.67%     |
| 4     | Endometrial polp                | 06          | 3.34%      |
| 5     | Simple hyperplasia              | 05          | 3.33%      |
| 6     | Atrophy /Cystic atrophy         | 10          | 6.67%      |
| 7     | Carcinoma endometrium           | 01          | 0.67%      |
| 8     | Secretary phase                 | 10          | 6.67%      |
| 9     | Proliferative phase             | 11          | 7.34%      |
| Total |                                 | 150         | 100%       |

Table 3  Cervical lesions in hysterectomy specimens

| Sl. No | Cervical changes                | No.of cases | Percentage |
|--------|---------------------------------|-------------|------------|
| 1      | Chronic non-specific cervicitis | 95          | 63.34%     |
| 2      | Chronic polypoidal endocervicitis | 35       | 23.65%     |
| 3      | CIN 1                            | 12          | 8.00%      |
| 4      | CIN11                            | 01          | 0.67%      |
| 5      | Carcinoma cervix                | 01          | 0.67%      |
| 6      | Cervical fibroid                 | 01          | 0.67%      |
| Total  |                                 | 150         | 100%       |