



Histopathological study of hysterectomy specimens in a tertiary care centre: study of 520 cases

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Abstract

Background: *The female genital tract is a hormone responsive system to a degree unmatched by any other system in the body. Women worldwide suffer from gynaecologic and obstetric disorders that require hysterectomy as a treatment option. The aim of the study was to evaluate all hysterectomy specimens and to study the pattern of pathological changes of different lesions occurring in cervix and uterus in relation to different age groups.*

Materials and Methods: *This retrospective study was conducted on hysterectomy specimens reported to Department of Pathology. Total 520 hysterectomy specimens were included in the study with age of patients varying from 20 years to 90 years. Detail clinical and other relevant history were taken followed by thorough gross examination and histopathological evaluation.*

Results: *Total number of hysterectomy specimen received were 520(43%). The peak age prevalence of hysterectomy was noted in the 5th decade in 173 (33%) cases. The commonest lesion encountered was leiomyoma in 192 cases (37%), 20 cases (4%) of carcinoma cervix%, and 8 cases (1.6%) of cervical dysplasia, 6cases (1.2%) of carcinoma endometrium, were encountered.*

Conclusion: *Study of hysterectomy specimen is fascinating as a variety of lesions are encountered. This specimen being frequently received in our department needs to be thoroughly studied in order to know the different types of histopathological lesions in female genital tract, hence histopathological examination of all hysterectomy specimens should be done and analysed.*

Keywords: *Hysterectomy, leiomyoma, carcinoma cervix.*

Introduction

The Female genital tract is a hormone responsive system. The configuration of uterus changes dramatically throughout life. Women worldwide suffer from gynaecologic and obstetric disorders that require hysterectomy as a treatment option. This may also involve removal of the fallopian tube and ovary depending on clinical indication, age and parity of the woman.¹ Hysterectomy is a

definite treatment of pelvic pathology including fibroid, abnormal heavy bleeding, chronic pelvic pain, endometriosis, and adenomyosis, uterine prolapse, pelvic inflammatory disease and cancer of reproductive organs².

Uterine fibroids and adenomyosis were the most common benign conditions in hysterectomy specimens in our community with peak incidence at 41-50 years.³ Ultimate diagnosis is only on

histology, so every hysterectomy specimen should be subjected to histopathological examination.

The present study is aimed at a detailed histopathological evaluation of all hysterectomy specimens and to study the pattern of pathological changes of different lesions occurring in cervix and uterus in relation to different age groups.

Material and Methods

The present study was a retrospective study of the gross and histopathological findings of uterus and cervix in 520 hysterectomy specimens received in the Department of Pathology, AMCH, Bijapur over a period of five years from

May 2009 to June 2014. All hysterectomy specimens with uterine and cervical indications for hysterectomy irrespective of route and type of surgery were included in the study. The material was obtained from the clinical examination and clinical records. Following the receipt of surgical specimens in 10% formalin, it was allowed to fix for 24-48 hours. Detailed gross examination was carried out and multiple parallel sections were made and examined, the tissue bits from representative areas were taken for histopathological examination and paraffin blocks prepared. Multiple sections were cut and routinely stained with hematoxylin and eosin stain and studied.

Results and Observation

During the study period, a total of 520 hysterectomies were done for various indications. Age of the patients ranged from 20-90 years with peak incidence in the 5th decade, with 173 (33%) cases, followed by 147 (28%) in 4th decade.

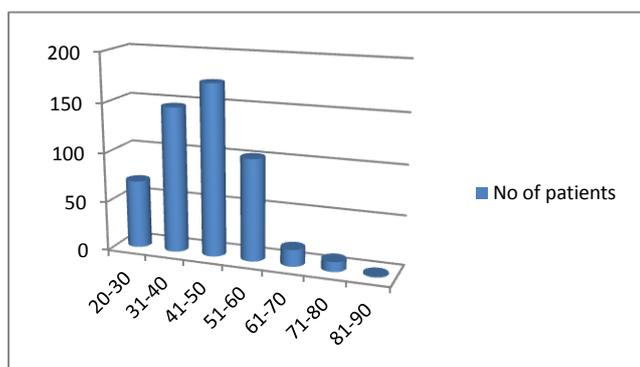


Fig 1 Age distribution of patients in hysterectomy

On histomorphological study of cervical lesions chronic cervicitis was most commonest finding in 495(95%) cases, followed by cervical polyp in 5 cases (0.9%). Six patient had Cervical intraepithelial neoplasia I and 20 (4%) had squamous cell carcinoma of cervix. Peak age of all cervical lesions were common in 5th decade of life.

Table1: Prevalence of various lesions in cervix

Histopathological findings	No of cases	%
Chronic cervicitis	495	95
Cervical polyp	5	0.9
Cervical intraepithelial neoplasia I	6	1.2
Cervical intraepithelial neoplasia II	2	0.4
Squamous cell carcinoma	20	4

Secretory phase of endometrium was commonest pathology noted in endometrium of hysterectomy specimens. Endometrial polyp was seen in 27 cases (5.19%). 1 case (0.19%) of adenocarcinoma of endometrium was also noted. In case of myometrium, 199 leiomyomas were noted, followed by adenomyosis in 81 cases. In case of leiomyomas, 1 was benign cellular leiomyoma and 1 case showed lipoleiomyoma. One case of hydatiform mole was encountered.

Table 2: Prevalence of lesions in endometrium

Histopathological findings	No of cases	%
Proliferative,secretive,atrophic	491	94.42
Cystic glandular hyperplasia	1	0.19
Chronic endometritis,	4	0.76
Hyperplasia	12	2.30
Endometrial polyp	27	5.19
AdenocarcinomaEndometrium	1	0.19
Endometrial stromal sarcoma	5	0.96

Table 3: Prevalence of lesions in myometrium

Histopathological findings	No of cases	%
Leiomyoma	199	36.92
Adenomyosis	81	15

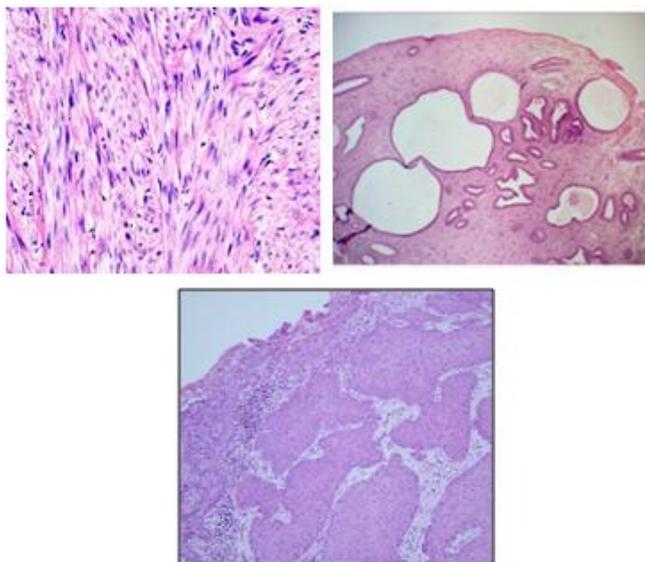


Figure 2: (A) Leiomyoma (H&E; 10X); (B) Endometrial polyp (H&E; 10X) and (C) Cervical carcinoma showing islands of malignant squamous cells. (H&E: 40X)

Discussion

Hysterectomy is the most commonly preferred surgery in gynecological practice as it provides definite cure and accurate diagnosis. The clinical indications to perform this major surgery should always be justified as it has its own psychological, emotional, medical, hormonal and sexual effects on a females life. So, here comes the role of histopathological analysis to evaluate the appositeness of the hysterectomy.

In the present study age range of the patient were between 20 to 90 years with majority of patients in age group of 41-50 years (33%), which was in concordance with studies done by Ajmera Sachin Ketal's⁴ and Yasmin, Tahira⁵. The prevalence of carcinoma of cervix was 4% which was comparable with the Misra et al⁶. The peak age of cervical carcinoma in present study was noted in between 41 to 60 years of age with 12 (60%) cases which was in concordance with Jyoti et al⁷.

In our study most common finding in endometrium was secretory phase endometrium. The prevalence of endometrial polyps in present study was 5.2% (27/520), with peak age presentation in between 41-50 years with 13(48%) and in the study done by Mahmoud Khaniki et al's⁸ the peak age prevalence of endometrial

polyps were seen in between the age group of 45 to 60 years with 13(54%).

The prevalence of carcinoma endometrium, in present study was 1.2% (6 out of 520 cases) which was similar to the studies done by John J. Molitor 1971⁹1.42%(4/281) with peak age prevalence of carcinoma endometrium was in between 41 to 50years 3 (50%) years which is comparable with the study done by Samaila et al¹.

In case of myometrium prevalence of leiomyoma was 36% (192/520), which was comparable with the G. Gupta et al's¹⁰ followed by adenomyosis. In the present study the peak age prevalence was in 4th decade with 31 to 40 years 105 (54%) followed by 5th decade which was comparable to study done by Diesen DL et al¹¹.

Conclusion

This study confirms that benign pathologies are more common in hysterectomy specimens than their malignant counterparts and that the most common pathology identified in hysterectomy specimen is leiomyoma with peak age incidence in 4th decade and then adenomyosis. Among the malignant lesions in the study, majority were carcinoma cervix, which constituted 4% followed by endometrial malignancies. Majority of patients with malignant neoplasm in the study were in 5th decade. Mean age at hysterectomy falls between 40 and 50 years in all studies done throughout the world. This proves that the cumulative number of various uterine and adnexal pathologies is maximum in this age-group everywhere. As hysterectomy specimens are frequently encountered, it needs to be studied thoroughly in order to know the different types of lesions.

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