ORIGINAL ARTICLE

PATTERN OF HISTOPATHOLOGICAL LESIONS IN UTERINE CORPUS OF HYSTERECTOMY SPECIMENS

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ABSTRACT

Background: Hysterectomy is one of the common gynecological surgical procedures throughout the world. The objective of this study was to see the pattern of histopathological lesions in uterine corpus of hysterectomy specimens.

Material & Methods: This descriptive study conducted in Bannu Medical College, Bannu, Pakistan from January 2011 to April 2014. A total of 160 abdominal hysterectomies were included in the study. The inclusion criteria was only abdominal hysterectomies with corpus uterine lesions of any age, where as an exclusion criteria was vaginal hysterectomies and lesions of cervix, fallopian tubes and ovaries as well as normal corpus hysterectomies. A minimum of two sections and a maximum of six sections were taken from corpus lesion of the uterus. Sections 5 micron thick were stained with H&E and reported by Histopathologist.

Results: A total of 160 hysterectomies were included in this study with an age range from 25 to 70 years. The most common age encountered was between 40-49 years, 76 cases (47.5 %). The common histopathological lesion was leiomyoma 66 cases (41%) followed by adenomyosis 51 (32 %) and endometrial polyps 15 (09 %), whereas malignant tumors were endometrial adenocarcinoma 03(1.87%), endometrial stromal sarcoma, leiomyosarcoma and carcinosarcoma were each 01(0.6%).

Conclusion: Leiomyoma and adenomyosis are the common benign lesions in hysterectomy specimens.

KEY WORDS: Hysterectomy; Histopathology; Leiomyoma; Adenomyosis; Adenocarcinoma; Endometrial stromal sarcoma; Leiomyosarcoma; Carcinosarcoma.

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INTRODUCTION

Uterus is divided into corpus, cervix and two fallopian tubes and ovaries.The uterus is pear shaped hollow organ with normal weight of 140-180 gm in adults. The corpus is composed of two layers i.e. endometrium and myometrium. The uterus develops from celomic epithelium during the 6th week of development during which it invaginates to form paramesonephric duct (mullerian duct).[1-3]

The uterus is subject to variety of disorders i.e. inflammatory, hyperplastic and neoplastic, both benign and malignant. Common inflammatory and non inflammatory lesions are acute and chronic endometritis, tuberculosis, endometrial atrophy and retained products of conception respectively.The hyperplastic lesions are simple and complex hyperplasia and endometrial polyps. The benign neoplasms of myometrium are leiomyoma and adenomyosis. The malignant lesions of endomyometrium are various endometrial adenocarcinomas, stromal sarcomas, leiomyosarcomas and carcinosarcomas.[4-12]

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The common complaints in reproductive and post menopausal age groups are menorrhagia/ per vaginal bleeding, abdominal mass or vaginal discharge, for which these patients seek medical advice and treatment, and in case of failure of conservative treatment, either general surgeons or gynecologists are consulted for hysterectomy especially if her family is complete, also most of the time the patients demands for removal of uterus to get rid of the monthly disturbances and the common complication of anemia due to increased blood loss.

Hysterectomy is the definitive treatment for most uterine pathologies like hyperplasia, leiomyoma, adenomyosis, polyps, etc, therefore hysterectomy specimens carries both diagnostic and therapeutic significance.[13-15]

Prevalence of uterine corpus pathologies generally remains the same from nation to nation and region to region in countries with little differences, hence this study was conducted in Bannu city of Pakistan keeping in view the above aspects.

Hysterectomy is one of the commonest surgical procedures in reproductive as well as post reproductive women. It is the second common surgical procedure in USA.[16-18]

The objective of this study was to see the pattern of histopathological lesions in uterine corpus of hysterectomy specimens. The reason for selecting corpus pathologies for this study was that most of the cases of abnormal uterine lesions are related to the corpus of uterus.

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MATERIAL AND METHODS

This descriptive study was carried out at the Department of Pathology, Bannu Medical College, Bannu, Pakistan from January, 2010 to April, 2014. A sample of 160 biopsy specimen was selected through consecutive sampling. The inclusion criteria was corpus pathology of the endometrium and myometrium through abdominal hysterectomies with or without salpingoophorectomy. The exclusion criteria were vaginal hysterectomies as well as cervical, fallopian tubes and ovarian pathologies. The specimen collected were mostly from gynecologist and general surgeons of the region. The biopsy specimen were collected in 10% formalin along with properly filled request forms containing name, age, complaints i.e. menorrhagia, per vaginal bleeding, abdominal mass etc. The biopsy specimen were properly labeled and recorded.

Gross examination of the uterus i.e. size, shape, wall thickness, endometrial cavity and any mass were noted, and then two to six sections were taken from different parts of uterus especially corpus. The different sections taken were processed manually in different grades of ethanol followed by xylene, and wax. Blocks were prepared and freezed in refrigerator and than five micron thick sections were taken. The slides prepared were processed for staining of Hematoxylin and Eosin and lastly mounted with DPX, labeled and reported by histopathologist.

RESULTS

A total of 160 hysterectomies were included in this study. The mean age of the sample was 43 years over a wide age ranging from 25 to 70 years. The most common age encountered was between 40-49 years i.e.76 cases (47.5%) were present in this age group. (Table 1) The commonest type of abdominal hysterectomy was total abdominal hysterectomy with bilateral salpingoophorectomy in 67 (42%) cases. (Table 2)

The common histopathological lesion was leiomyoma in 66 (41%) cases, followed by adenomyosis in 51 (32%) and endometrial polyps in 15 (9%), whereas malignant tumors were endometrial adenocarcinoma in three (2%), endometrial stromal sarcoma, leiomyosarcoma and carcinosarcoma were each in one (0.6%) cases. (Table 3)

Table 1: Age distribution of hysterectomies patients with corpus pathologies.

S. No.	Age group in years	Number	Percentages
1	<30	7	4.37%
2	30-39	45	28.12%
3	40-49	76	47.5%
4	50-59	24	15.00%
5	60-70	8	5.00%
Total		160	100%

Table 2: Types of abdominal hysterectomy with corpus pathologies.

S. No.	Type of hysterectomy	Number	Percentage
1	Hysterectomy without bilateral salpingoophorectomy	35	22%
2	Hysterectomy with bilateral salpingoophorectomy	67	42%
3	Hysterectomy with right salpingoophorectomy	40	25%
4	Hysterectomy with left salpingoophorectomy	18	11%
Total		160	100%

Table 3: Histopathological lesions of endomyometrium of corpus uteri in abdominal hysterectomies.

S. No.	Histopath. diagnosis	Number	Percentage
1	Leiomyoma	66	41%
2	Adenomyosis	51	32%
3	Endometrial polyp	15	9%
4	Endometrial atrophy	14	7%
5	Endometrial hyperplasia	5	6%
6	Chronic endometritis	4	6%
7	Endometrial adenocarcinoma	3	2%
8	Stromal sarcoma	1	0.6%
9	Leiomyosarcoma	1	0.6%
10	Carcinosarcoma	1	0.6%
Total		160	100%

DISCUSSION

Abdominal hysterectomy is the commonest gynaecological procedure in perimenopausal age throughout the world.[1] In UK and USA around 60-80% hysterectomy are abdominal, although abdominal route is more frequently associated with prolong hospital stay, high patient cost and more complications as compared to vaginal route.[2] Since vaginal hysterectomy carries less risk and complications, this route is encouraged especially if the disease is confined to the uterus and the uterine weight is less than 280 grams.[3] Hysterectomy is the definitive treatment for many uterine diseases as well as diseases of the fallopian tubes and adnexae.[3,4] Histopathological examination of uterine surgical biopsies carries both ethical, diagnostic and therapeutic significance as most uterine biopsies show no gross abnormality.[5] This study was conducted to see the pattern of uterine corpus histopathological lesion in our region and to compare this study with other studies. The commonest age range of hysterectomy in our study was 40-49 years which is similar to Rather et al.[6] Amongst the benign myometrial pathologies, leiomyoma is the most common tumor 41% and the same is true for other studies,[16,17] where Salman et al[18] reported a lower incidence of leiomyoma in macroscopically normal hysterectomy specimens.

Adenomyosis is the second most common benign myometrial pathology in our study 32%, other study also have reported adenomyosis the second common pathology of myometrium.[2,4,5]

Amongst the endometrial pathologies, endometrial polyp is the commonest pathology 15 (9%) in our study and the same is reported by Sajjad et al,[4] where as Rather et al[6] have reported a lower incidence. In our study endometrial atrophy 7% reported is lower in incidence from that reported by Gupta et al[2] 30.60%. The endometrial hyperplasia 5 (3.1%) in our study is also different from other studies where they have combined endometrial hyperplasia with chronic endometritis and disordered proliferation which raises the incidence in their studies.

Regarding malignant tumors which are very uncommon as compared to the benign tumors of the corpus in our study, we have reported three endometrial adenocarcinoma, one each stromal sarcoma, leiomyosarcoma and carcinosarcoma. In Rather et al[6] five cases of malignant tumors were encountered from endomyometrium out of 698 cases. Other studies like Bukhari and Sadiq have reported similar incidence of endomyometrial malignancies.[10]

CONCLUSION

Leiomyoma and adenomyosis are the common benign lesions in hysterectomy specimens.

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CONFLICT OF INTEREST
Authors declare no conflict of interest.
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None declared.