HISTOPATHOLOGICAL STUDY OF UTERINE LESIONS IN HYSTERECTOMY SPECIMENS IN A TERTIARY CARE HOSPITAL.

Pathology

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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. The gross configuration of the uterus changes dramatically throughout life. It is a kind of "Puppet on a string", thus manipulated throughout life by altering levels of ovarian hormones.

Objective of the study: The present study is aimed at detailed histopathological evaluation of uterine lesions of hysterectomy specimens.

Methodology: A total of 448 cases of hysterectomy specimens were received in the department of pathology GGH Ananthapur, for two years, were reviewed. The specimens were processed, and the histopathological diagnosis was studied.

Result: Peak age group of hysterectomy was 40-49 years with 186 (41.51%) cases. The youngest patient was 21 years old, and the oldest was 75 years old. The most frequent type of hysterectomy done was total abdominal hysterectomy in 293 (65.4%) cases.

Conclusion: Hysterectomy is the most common surgery performed in gynecological practice. A wide range of lesions were noted when hysterectomy specimens are subjected to histopathological examination.

KEYWORDS

Hysterectomy, Histopathology.

1. INTRODUCTION

The female reproductive system has been affected by various abnormalities and diseases. Hence this has been the subject of interest and the basis for the gynecological practice. The uterus consists of the endometrium and myometrium, continuously stimulated by hormones, denuded monthly of its endometrial mucosa, and inhabited periodically by fetuses. (1) The uterus is a vital reproductive, and hormone-responsive organ is subjected to a variety of physiological changes, benign and malignant disorders. Many treatment options are available nowadays, including medical and conservative surgical procedures, but hysterectomy remains the most preferred method to manage gynecological disorders (2). Hysterectomy can be done by the vaginal or the abdominal route, or with laparoscopic assistance (3). This helps in adequate sampling of the required and suspected areas and thus helps in the diagnosis of various lesions without any error of sampling.

The objective of the study was to study the histopathological features of varied lesions of the uterus, their profile, and the distribution of different lesions in relation to age.

2. MATERIAL AND METHODS

Total 448 hysterectomy specimens were received in the Department of Pathology, Government Medical College, Ananthapur, a tertiary health care centre over a period of 2 years, i.e., January 2017 to December 2018. It is a retrospective study. The information is retrieved from the records, and slides were reviewed, whenever necessary repeat sections were taken and processed.

3. RESULTS

A total of 448 cases were studied. The most common type of hysterectomy was total abdominal hysterectomy comprising 293 cases (65.40%).

Table 1: Types of specimens received at Dept of Pathology GMC ATP.

S.NO	TYPE OF SPECIMEN	NO.OF CASES(448)	%
1	SIMPLE HYSTERECTOMY	155	34.60%
2	TOTAL ABDOMINAL HYSTERECTOMY	293	65.40%

The hysterectomies were distributed over a wide age range of 21 to

more than 70 years. Of these, 186 cases (41.51%) were encountered in the age group of 40 - 49 years, which is the most common age group.

Among endometrial lesions, Atrophic endometrium was the most common endometrial pathology seen in 24.77% cases followed by endometrial hyperplasia (10.04%). Malignant tumors comprised only 1.56% of cases, i.e., 3 cases of endometrial adenocarcinoma and one case of endometrial stromal sarcoma were observed.

Chart 1: Bar diagram showing the Age distribution of uterine lesion.

Table No 2: Showing Histomorphological Variants Of The Endometrium

S. No	ENDOMETRIAL LESIONS	NO. OF CASES(448)	%
1	PROLIFERATIVE PHASE	127	28.34%
2	SECRETORY PHASE	96	21.42%
3	DISORDERED PROLIFERATION	23	5.13%
4	ENDOMETRIAL HYPERPLASIA	45	10.04%
5	ATROPHIC ENDOMETRIUM	111	24.77%
6	ENDOMETRIAL POLYP	38	8.48%
7	ENDOMETRIAL CARCINOMA	7	1.56%
8	EXTENSION OF CERVICAL CARCINOMA	1	0.22%

In most of the cases (51.0 %), myometrium was unremarkable, showing only physiological changes. The most common myometrial pathology encountered was leiomyoma (23%), followed by adenomyosis (21%). In 4 % of the cases, myometrial blood vessels showed monkebergsclerosis.

Chart no:2 Bar diagram showing the distribution of myometrial lesions

Chart no:3 Pie diagram showing various types of leiomyoma

Fig1: Gross specimen showing submucosal leiomyoma

Fig2: Gross specimen showing endometrial carcinoma

Fig 3:Gross specimen showing endometrial stromal sarcoma

Fig 4: Endometrial stromal sarcoma invading into myometrium H&E 10x

Fig 3:Endometrial stromal sarcoma metastasizing to fallopian tube H&E 4X

Fig 4: Endometrial stromal sarcoma metastasizing to lymph nodes H&E 10x

DISCUSSION:

Hysterectomy is the most commonly performed major gynecological surgery throughout the world. It is a successful operation in terms of symptom relief and patient satisfaction and provides definitive cure to many diseases involving uterus as well as adnexa.(4). This study was conducted to analyze the patterns of lesions in hysterectomy specimens in our institution and correlate the findings of other workers. In the present study, the maximum number of patients i.e., is 41.51%, was seen in the age group of the 5th decade. In an analysis of

1000 consecutive operations by Watts et al. (5), the most number of cases, i.e., 45.2%, were distributed in the age group of the 5th decade. Various studies done by Rather GR et al. (6), Ramchandran T et al. (7), and Ajmera et al. (8) had similar findings.

The most common surgical approach in the present study is abdominal hysterectomy (65.4%). A study by Ajmera et al. (8) abdominal approach was preferred in 54.4% cases. In the present study, 45(10.04%) cases of endometrial hyperplasia were noted. All are simple hyperplasia without atypia. This finding was comparable with the studies done by Ojeda V (9). and Ranabhat et al. (10), which showed 22.3% and 16% of cases of endometrial hyperplasia, respectively. Three cases (1.56%) of endometrial carcinoma were noted in the age group of above 45 years in our study. One case of stromal sarcoma in a patient of age 26yrs was noted. The patient had metastasis in both fallopian tubes, both ovaries, and lymph nodes. Endometrial stromal sarcoma is a rare tumor comprising 0.2% of all uterine malignancies, <10% of cases of uterine sarcomas. The mean age is 42 to 58 years. Local recurrences and distant metastasis are frequent. Leiomyoma is the most common(23%) myometrial lesion in this study. Most of the studies done on the histopathological examination of hysterectomy specimen to date reveal uterine fibroid are the most common pathology noted in the uterus. Studies were done by Watts WF et al (5) Abdullah LS(11), and Ranabhat SK et al(10) had the distribution of fibroid being 41.5%, 34.6%, and 30.3% respectively. Adenomyosis is the second most common myometrial pathology in this study. Adenomyosis(21%)is rarely diagnosed preoperatively and is still largely under-diagnosed as it has no specific symptoms of its own(12). It is usually diagnosed after hysterectomy by histopathological examination(13). we have noted a case of squamous cell carcinoma of cervix extending to the endometrial cavity.

CONCLUSION:

Hysterectomy is the most common surgery performed in gynecological practice. A wide range of lesions are noted when hysterectomy specimens are subjected to histopathological examination.

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