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Clinicopathological Study of 100 Cases of Hysterectomies In A Tertiary Care Centre.

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ABSTRACT

Background: A retrospective study of 100 cases of hysterectomies was conducted in Dept. of Pathology, Government Medical College, Patiala. **Methods**: Clinical and histopathological data were collected and correlation made. Maximum number of patients who underwent hysterectomy were in the age-group of 41-50 years. **Results**: The median age came out to be 47 yrs. Abnormal uterine bleeding was the most common complaint (82%). Main indication of hysterectomy was fibroid(63%) followed by prolapse (14%) and adenomyosis (12%). Histopathological correlations were made with the clinical findings. On histopathology, leiomyoma was the most common diagnosis followed by atrophic endometrium and adenomyosis. **Conclusion**: Correlation between clinical and histopathological diagnosis was very good. But still, histopathology remains the mainstay of establishing the confirmatory diagnosis and for histological subtyping of malignancies.

Keywords: hysterectomy, prolapse, leiomyoma, atrophic endometrium, adenomyosis.

INTRODUCTION

Hysterectomy is the second most frequently performed major surgical procedure on women all over the world especially peri and post menopausal, second only to caesarean.[1] Hysterectomy is usually performed by a) Abdominal b) Vaginal and c) Laparoscopic routes.[2] Vaginal and laparoscopic hysterectomies are associated with fewer complications, shorter hospital stay, more rapid recovery and lower overall costs.[3] Hysterectomy is performed for a number of benign as well as malignant conditions like fibroid, abnormal uterine bleeding, endometriosis, adenomyosis, uterine prolapse, pelvic inflammatory disease, tumors of reproductive organs and gestational trophoblastic tumors when other treatment options are contraindicated or have failed, or if the woman no longer wishes to retain her reproductive function. Vaginal hysterectomy is traditionally recommended for women with uterine prolapse and abdominal hysterectomy is indicated for enlarged uterus, prior pelvic surgery, pelvic inflammatory disease and malignancy.[3] Fibroids are the most common indication (39%) cited for performance of hysterectomy.[4] However, the final diagnosis is by histopathology and every specimen must be subjected to the same which is mandatory.[5]

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Aims and Objectives

1. To study the most common age group undergoing hysterectomies.
2. To study the most common clinical cause of hysterectomies.
3. To study the most common diagnosis made on histopathology and correlate it with clinical diagnosis.

MATERIALS AND METHODS

A retrospective study was conducted on 100 cases of hysterectomy in Department of Pathology, Government Medical College, Patiala. The clinical data was recorded along with the demographic characteristics. Clinical diagnosis and radiological findings were recorded in the request proformos.

Hysterectomy specimens were preserved in 10% formalin. The gross features were noted and sections made and processed as per guidelines for the grossing. The obtained slides were stained and then analysed, histopathological findings were recorded and diagnosis was made. The results were

observed to see the correlation with the clinical data and diagnosis.

RESULTS

1. AGE-GROUP

S.no.	Age- group (yrs)	No. of patients (n=100)
1	31-40	28
2	41-50	44
3	51-60	24
4	>60	4

Hysterectomies were performed over a wide range of age. Maximum patients who underwent hysterectomy were in the age-group of 41-50 years (44%). Thus, patients in perimenopausal age most commonly complained of abnormal uterine bleeding, pelvic pain or abdominal/pelvic mass for which they were surgically operated.

2. Type Of Procedure

S.no.	Procedure	No. of patients (n=100)
1	Total abdominal hysterectomy	29
2	Total abdominal hysterectomy and salpingoophorectomy	64
3	Total abdominal hysterectomy with pelvic floor repair	2
4	Vaginal hysterectomy with pelvic floor repair	5

The most commonly performed procedure was total abdominal hysterectomy with bilateral or unilateral salpingoophorectomy as in 64% cases. All the cases where vaginal hysterectomy was performed were of uterine prolapse.

3. Clinical Diagnosis

S.no.	Clinical diagnosis	No. Of patients (n=100)
1	Fibroid	63
2	Abnormal Uterine Bleeding	7
3	Adenomyosis	6
4	Prolapse	14
5	Carcinoma Cervix	2
6	Ovarian Tumor	5
7	Endometrial Polyp	1
8	Pyometra	1
9	Endometrial Carcinoma	1

4. Histopathological Diagnosis

S.no.	Histopathological diagnosis	No. of patients (n=100)
1	Leiomyoma	61
2	Adenomyosis	14
3	Atrophic endometrium	12
4	Cin/ carcinoma cervix	2
5	Disordered proliferative phase	2
6	Endometrial polyp	1
7	Endometritis	1
8	Leiomyosarcoma	1
9	Serous carcinoma endometrium	1
10	Serous cystadenoma ovary	1
11	Seromucinous cystadenoma ovary	2
12	Granulosa cell tumor ovary	1
13	Dermoid cyst ovary	1

Hysterectomies were performed for the complaints of abnormal uterine bleeding, abdominal/pelvic mass, pelvic pain or abnormal PAP smear. Most of the hysterectomies were done for benign conditions (92%) and only 8 hysterectomies were done for the cases of suspicious malignancy. Fibroid was the most common indication of hysterectomy (63 cases) followed by prolapse in 14 cases. One case showed fluid collection and dense adhesions and was diagnosed as pyometra on radiological investigation. Two cases showed abnormal cervical cytology and were operated for carcinoma cervix. Hysterectomy was performed for one case of endometrial polyp.

The histopathological diagnosis of leiomyoma was seen in maximum hysterectomy specimens (61%). Adenomyosis was seen in 12% cases. All the cases of atrophic endometrium were found in hysterectomy specimens operated for uterine prolapse. This is due to the incidence of prolapse usually in postmenopausal patients. One case which was clinically diagnosed as pyometra showed features of endometritis. One case of leiomyosarcoma was diagnosed. Out of 5 cases clinically suspected as ovarian tumors, 3 cases were diagnosed as benign tumors and 2 were malignant-serous adenocarcinoma and granulosa cell tumor. Out of benign tumors, 1 was serous cystadenoma and 2 were seromucinous cystadenoma and 1 was diagnosed as dermoid cyst of ovary.

Figure 1: Photomicrograph showing specimen of total abdominal hysterectomy with bilateral salpingo-oophorectomy

Figure 2: Cut-section of specimen showing multiple intramural and submucosal fibroids with whorling pattern

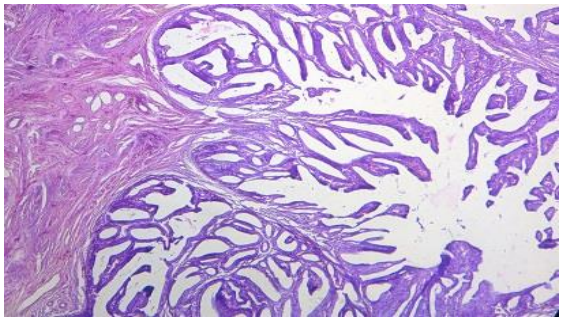

Figure 3: Photomicrograph showing villoglandular adenocarcinoma Cervix, H&E, 100x

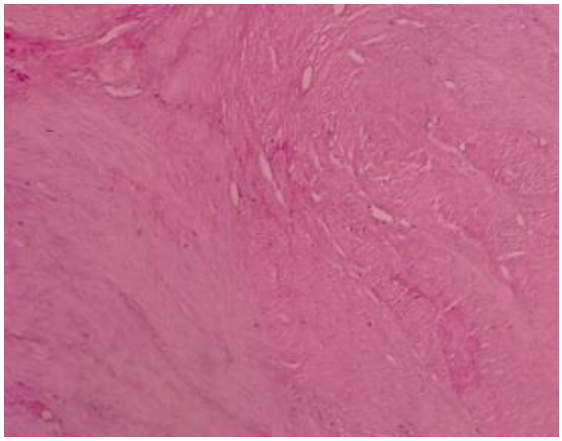

Figure 4: Photomicrograph showing interdigitating smooth muscle fascicles in a case of leiomyoma, H&E, 100x

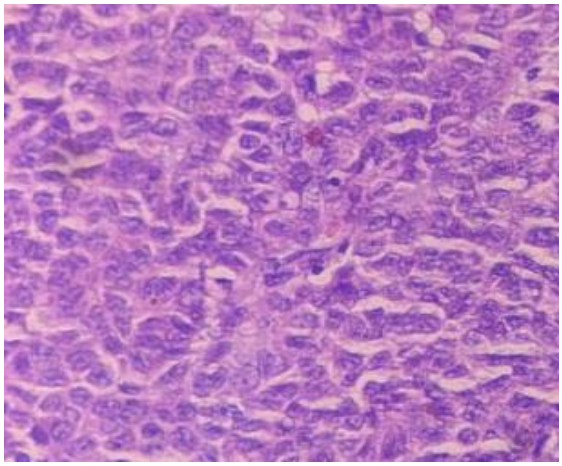

Figure 5: Adult granulosa cell tumor, the nuclei are pale and some have grooves.H&E,400x

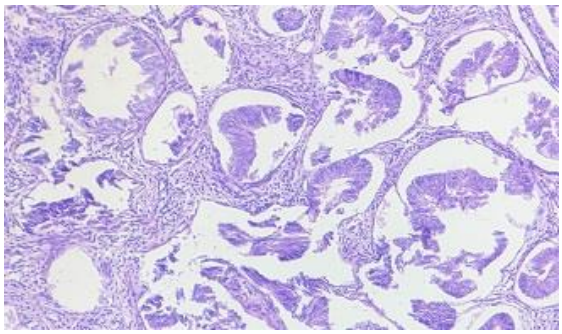

Figure 6: Adult granulosa cell tumor, H&E, 100x

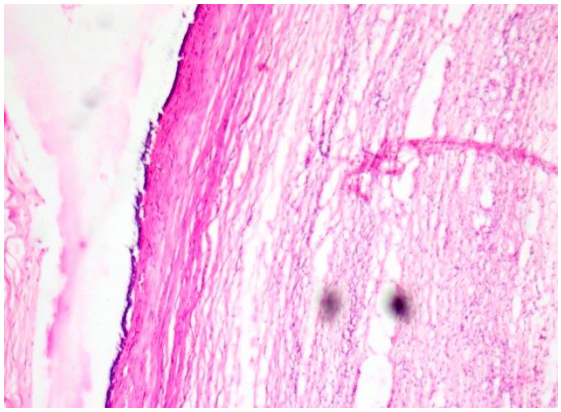

Figure 7: Photomicrograph showing serous cystadenoma, H&E 100x

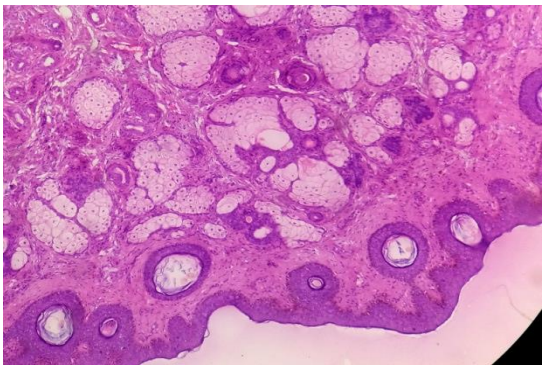

Figure 8: Dermoid cyst ovary showing epithelial lining along with sebaceous glands and hair follicles, H&E 100x

DISCUSSION

Hysterectomy is the most commonly performed gynaecological surgery all over the world. There is a decline in the rate of hysterectomies performed due to the advent of newer treatment modalities like hormonal therapy, GnRH agonists, chemotherapy and radiotherapy. Limited surgical procedures like myomectomy and polypectomy are also performed.[3] The decision to perform the surgery must be taken judiciously after considering the conservative methods of management. Common complications after hysterectomy include haemorrhage (2.4%), genitourinary disorders (eg. urinary retention, renal or ureteral injury) (1.9%), urinary tract infection (1.6%) and infection other than that in the urinary tract (1.6%).[6]

In our study on 100 cases of hysterectomy specimens, the surgery was performed in patients with age >30 years. Similar age group was seen in a study conducted by Shergill SK et al.[7]

Maximum cases were diagnosed as leiomyoma (61%) which is in accordance with the study conducted by Gangadharan V et al (41%).[8] The percentage of leiomyomas diagnosed in our setting is more. This can be due to the earlier presentation of these patients with complaints of abdominal discomfort, menorrhagia and pressure symptoms.

In a study conducted by Pandey et al in 2014,[9] fibroid was diagnosed in 40% cases and prolapse in 16.3 % cases. Our study has fibroid in 61% cases and prolapse in 14% cases similar to the above study.

The diagnosis of dermoid cyst which is a germ cell tumor was made in a 60 years old postmenopausal patient. Though these occur most commonly in the reproductive age group, more than 25% cases have been diagnosed in postmenopausal women.[10] This could be due to the late presentation of the patient with the symptoms.

In a postmenopausal patient of 50 years age who presented with the complaints of irregular, excessive vaginal bleeding and abdominal pain; on histopathological examination of ovary, the diagnosis of granulosa cell tumor was made. The endometrium was in proliferative phase. This could be due to the estrogen secreting nature of the tumor.[11]

There were 3 specimens of ovaries with size ranging from 1 to 18 cm in postmenopausal women with ages > 50 years, which on cut-section were mostly cystic and clear fluid came out. These were diagnosed as serous and seromucinous cystadenomas. A preliminary diagnosis of ovarian neoplasms was made in these cases on ultrasound examination, which necessitated the procedure of total abdominal hysterectomy with bilateral salpingoophorectomy to establish the confirmatory diagnoses.

There was one case diagnosed as villoglandular adenocarcinoma cervix in a 48 years old patient and on gross examination of the hysterectomy specimen, there was seen a growth measuring 1.5x1.2 cm with papillary projections into the endocervical canal and on serial cuts, the growth did not extend beyond 0.5 cm. Initially, on examination of PAP smear of this patient, diagnosis of HSIL was given and histopathological examination of cervical biopsy revealed surface papillae that ranged from tall and thin to short and broad and contained central fibrous cores typically containing numerous inflammatory cells. The papillae were lined by stratified epithelial cells with slight to moderate nuclear atypicality and mitotic activity. A diagnosis of villoglandular adenocarcinoma was made.[12] Total abdominal hysterectomy was performed for patient management.

CONCLUSION

Hysterectomy is the widely used treatment modality for various uterine pathologies. This study establishes high incidence of benign conditions of uterus mainly leiomyoma. A strong clinicopathological correlation has been found in the cases. Histopathological diagnosis is essential for the confirmation and for finding out any pathology that has been missed on clinical and ultrasound examination. Histological subtyping of various tumors helps in deciding the prognosis and best course of management.

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