



PATTERNS OF LESIONS IN HYSTERECTOMY SPECIMENS – A RETROSPECTIVE STUDY

Pathology

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ABSTRACT

Background: Hysterectomy is the most commonly performed gynaecological surgery throughout the world. This study was undertaken to identify the common Histopathological findings in varied uterine lesions & to correlate this findings with age & clinical indications.

Method: Study was conducted in Department of Pathology at SKNMC, Narhe, Pune. Total 162 patients were studied over a period of six months.

Results: Commonest age group was 41 – 50 yrs, in which hysterectomy was performed. Menorrhagia was the most common indication. Most common Histopathological finding was Adenomyosis & Leiomyoma in myometrium, Chronic non specific cervicitis in cervix. Apart from these we also found few cases of Carcinoma of Endometrium, Carcinoma of Ovary, Mature Cystic Teratoma & Carcinoma in Situ of Cervix.

KEYWORDS

Hysterectomy, Endometrium, Leiomyoma, Adenomyosis

INTRODUCTION:

Uterus is a vital reproductive organ, subjected to many benign & malignant diseases. Abnormal uterine bleeding is a common but complicated clinical presentation. Most common complaints presented are P V Bleeding, Pain in Abdomen, post menopausal bleeding, Mass per abdomen, something coming out of vagina etc. Many treatment options are available; including medical & conservative surgical treatment but hysterectomy remains one of the most preferred methods to manage gynaecological disorder. Histopathological examination of hysterectomy specimens carries diagnostic and therapeutic significance. Hence, this study was conducted with a view to get insight into the patterns of lesions in hysterectomy specimens in our institution.

Material Methods:

This is a retrospective study carried out in the department of pathology at a tertiary care hospital. Total 162 cases were studied over the period of six months from January 2019 – June 2019. Clinical details and relevant investigations of the patient's undergone hysterectomy were obtained by histopathology requisition form. Specimen was received in 10% formalin. After doing gross examination sections were taken from representative areas, processed & paraffin blocks were prepared. Blocked were sectioned and routinely stained with H & E stain. Detailed microscopic examination of every slide was carried out and final histopathological diagnosis was given.

Results:

Total 162 specimen of hysterectomy were studied out of which 76 (46.91%) were of partial hysterectomy, 86 (56.08%) of total hysterectomy (Table: 2). Patients' age ranged between 31 – 90, commonest age group at presentation was of fourth decade (41-50): 77 cases (47.53%), next group was third decade (31-40): 43 cases (26.54%) (Table: 1).

In Present study, Indications for hysterectomy were Menorrhagia 90 cases (55.55%) followed by Prolapse 30 cases (18.51%), Fibroid 29 cases (17.90%), Ovarian cyst 09 cases (5.55%), Endometrial carcinoma 03 cases (1.85%) & Ovarian carcinoma 01 case (0.61%) (Table: 3).

Commonest HP diagnosis made was Chronic Non Specific Cervicitis 158 cases (97.53%) followed by Proliferative Phase 66 cases (40.74%), Adenomyosis 57 cases (35.18%), Leiomyoma 32 cases (19.75%), Cystic Atrophy 34 cases (20.98%), Leiomyoma + Adenomyosis 27 cases (16.66%), Secretory Phase 24 cases (14.81%) & endometrial polyp 07 cases were noted (Table: 4, 5).

Apart from these in present study we found three cases (1.85%) endometrial malignancy, one was of moderately differentiated endometrioid adenocarcinoma with < ½ of myometrial invasion, second was of high grade serous adenocarcinoma with > ½ of myometrial invasion & third with endometrial adenocarcinoma arising in endometrial polyp.

In cervical Lesions one carcinoma in situ was found and one mild to moderate dysplasia was found (Table: 6). Majority of cases with chronic non specific cervicitis also showed squamous metaplasia, ulceration and koilocytic change.

In adenexal lesions Follicular cyst & hydrosalpinx were the commonest finding 16 (9.30%) & 14 cases (8.13%) each. Other than this Neoplastic lesions like Serous cystadenoma (05 cases), Mature Cystic Teratoma (02 cases), Serous cystadenofibroma (02 cases), Mucinous cystadenoma (01 case) & endometrioid carcinoma of ovary with omental invasion (01 case) & Endometriosis of ovary (01 case) were found (Table: 7).

DISCUSSION: Hysterectomy is the most commonly performed surgery in females throughout the world. This study was conducted to analyze the patterns of lesions in hysterectomy specimens and to compare our findings with those of the other research articles.

The maximum numbers of cases were found in 41 – 50 yrs of age, which is similar to other studies [01, 03, 04, 05, 06, 07, 12, 13 & 17]. In this study, Menorrhagia (90 cases) was most common indication for hysterectomy followed by Prolapse (30 cases), Fibroid (29 cases), Ovarian cyst (09 cases), Endometrial carcinoma (03 cases) & Ovarian carcinoma (01 case). [01, 03, 06, 12, 17 & 19]

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In present study, we found Proliferative Phase in 66 cases (40.74%) followed by secretory phase 24 cases (14.81%) which are comparable to other study [11, 16]. Predominant number of cases in this study showed normal physiologic phases such as proliferative, secretory and atrophic menstrual pattern [17,19]. The bleeding in the proliferative phase may be due to anovulatory cycles and bleeding in the secretory phase is due to ovulatory dysfunctional uterine bleeding.

In myometrial lesion, Adenomyosis (57 cases) was the most common finding followed by leiomyoma (32 cases), which was comparable to study done by Rhizvi G et.al [15]. Adenomyosis is rarely diagnosed preoperatively & is still largely under diagnosed as it has no specific symptoms. It is usually diagnosed after hysterectomy by histopathological examination [14].

Commonest HP diagnosis made was Chronic Non Specific Cervicitis in current study which is comparable to other studies [02, 04, 06, 08, 09, 10 & 17]. It was incidental finding in most of the cases.

In the following study three cases of endometrial malignancy were seen one was of moderately differentiated endometrioid adenocarcinoma with $< \frac{1}{2}$ of myometrial invasion, second was of high grade serous adenocarcinoma with $> \frac{1}{2}$ of myometrial invasion & endometrial adenocarcinoma arising in endometrial polyp, which was comparable to other studies [01, 02, 19]

Most common finding in ovarian lesion was Follicular cyst 9.30% (16 cases) followed by corpus luteal cyst 4.06% (07 cases). In neoplastic lesions we found Serous cystadenoma 2.90% (05 cases), Mature cystic teratoma 1.16 % (02 cases), Serous cystadenofibroma 1.16 % (02 cases), Mucinous cystadenoma 0.58% (01 case) & Endometrioid carcinoma with omental invasion 0.58% (01 case) finding which are comparable to other studies [01, 08, 17]

Fallopian tubes are more complex structures which represent more than channel from ovary to endometrial cavity. In the present study, majority of cases revealed no pathology in fallopian tubes. The only significant lesions were hydrosalpinx 8.13% (14 cases). Other minor lesions such as hematosalpinx, paratubal cyst & salpingitis were also seen.

Above findings were comparable to studies such as Amale A.et. al ,Rather G.et.al, Singh, D. P. et al & Bagwan et. Al & [04, 01, 17, 18]

CONCLUSION:

Present study provides an insight into Histological details of hysterectomy specimens in our institute.

Histopathological examination of every hysterectomy specimen should be done to ensure diagnosis & for better treatment of patients.

Table no. 1: Age wise distribution of cases

AGE	Total Number of Cases
31 – 40	43 (26.54%)
41 – 50	77 (47.53%)
51 – 60	27 (16.66 %)
61 – 70	10 (6.17%)
71 – 80	03 (1.85%)
81 – 90	02 (1.23%)

Table no.2: Type of HP specimen.

AGE	Total Number of Cases	Partial	Total
31 – 40	43	14	29
41 – 50	77	41	36
51 – 60	27	12	15
61 – 70	10	05	05
71 – 80	03	03	00
81 – 90	02	01	01
	162	76 (46.91%)	86 (53.08%)

Table No.3: Indication for hysterectomy

AGE	Total Number of Cases	Menorrhagia	Prolapse	Fibroid	Endometrial Carcinoma	Ovarian Cyst	Ovarian Carcinoma
31 – 40	43	19	11	10	-	03	-
41 – 50	77	47	12	12	02	04	-
51 – 60	27	17	03	05	-	01	01

61 – 70	10	06	02	01	-	01	-
71 – 80	03	01	02	-	-	-	-
81 – 90	02	-	-	01	01	-	-
Total	162	90 (55.55%)	30 (18.51%)	29 (17.90%)	03 (1.85%)	09 (5.55%)	01 (0.61%)

Table No. 4: HP findings

AGE	PP	SP	Cystic Atrophy	SHE with atypia	Disordered Proliferation	Hormonal Imbalance	Autolysis	Endometrial Carcinoma
31 – 40	12	06	14	06	01	04	-	-
41 – 50	37	09	12	05	02	09	02	02
51 – 60	12	07	04	04	-	-	-	-
61 – 70	03	01	03	-	-	02	01	-
71 – 80	02	-	01	-	-	-	-	-
81 – 90	-	01	-	-	-	-	-	01
Total	66 (40.74 %)	24 (14.81 %)	34 (20.98 %)	15 (9.25 %)	03 (1.85%)	14 (8.64%)	03 (1.85 %)	03 (1.85%)

Table No. 5: Myometrial Lesions

AGE	Adenomyosis	Leiomyoma	Adenomyosis + Leiomyoma	UR
31 – 40	12	12	07	12
41 – 50	31	14	11	20
51 – 60	09	06	08	05
61 – 70	03	01	02	04
71 – 80	01	-	-	02
81 – 90	-	02	-	-
Total	57 (35.18%)	32 (19.75%)	27 (16.66%)	44 (27.16%)

Two cases of malignancy of endometrium :

1. With moderately differentiated endometrioid adenocarcinoma with $< \frac{1}{2}$ of myometrial invasion.
2. High grade serous adenocarcinoma with $> \frac{1}{2}$ of myometrial invasion

Table No 6: Cervical Lesions

Chronic non specific Cervicitis	Mild to Mod dysplasia	Ca in situ	UR
158	01	01	02

Majority of cases with chronic non specific cervicitis also showed squamous metaplasia, ulceration and koilocytic change.

Table No. 7: Adenexal lesions.

Corpus Leuteal cyst	07 (4.06%)
Follicular cyst	16 (9.30%)
Mature cystic teratoma	02 (1.16%)
Serous cystadenoma	05 (2.90%)
Mucinous cystadenoma	01 (0.58%)
Serous cystadenofibroma	02 (1.16%)
Ovarian carcinoma	01 (0.58%)
Endometriosis	01 (0.58%)
Hematosalpinx	06 (3.48%)
Hydrosalpinx	14 (8.13%)
Paratubal cyst	07 (4.06%)
UR	110 (63.95%)

Image 1: 10 X | H & E]:Adenomyosis : Endometrial glands and stroma within myometrial tissue.

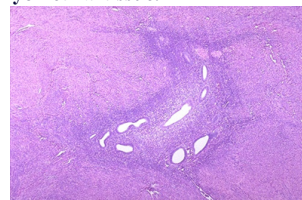


Image 2: 10x [H & E]: Leiomyoma: Showing smooth muscle arranged in whorled pattern.

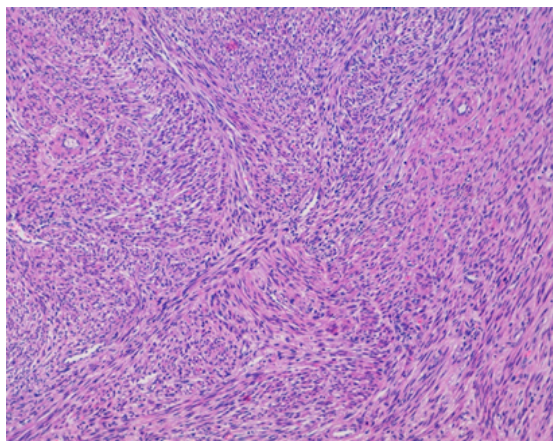


Image 3: 10 X [H & E] Moderately differentiated endometroid carcinoma of endometrium.

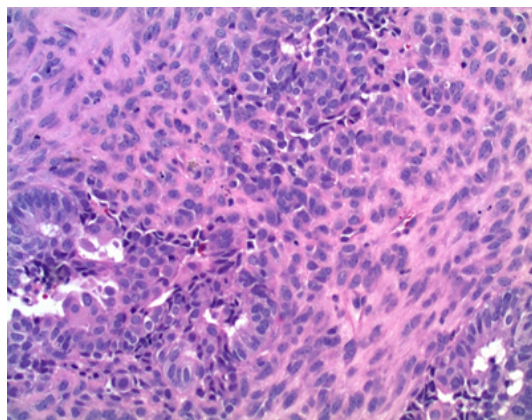


Image – 4: 10 X [H & E]: Serous Cystadenoma of Ovary: Cyst lined by flattened to cuboidal epithelium with underlined ovarian stroma.

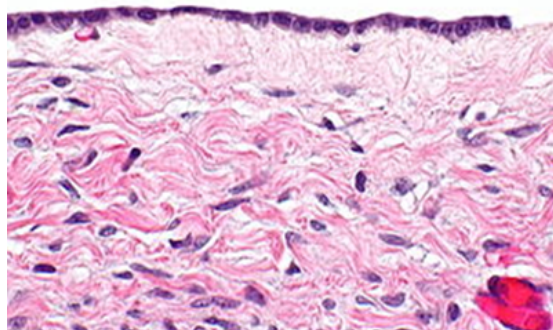


Image – 5: 10X [H & E]: Mucinous cystadenoma of Ovary: Cyst lined by mucinous epithelium with underlined ovarian stroma.

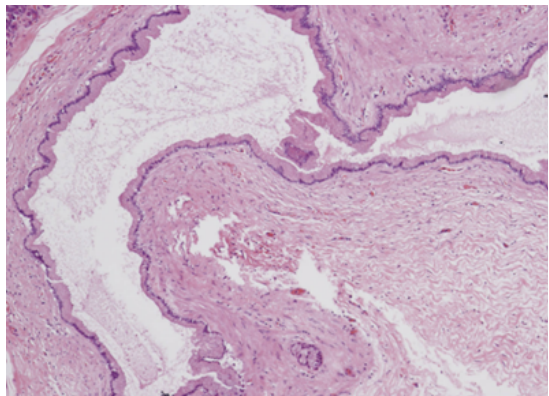
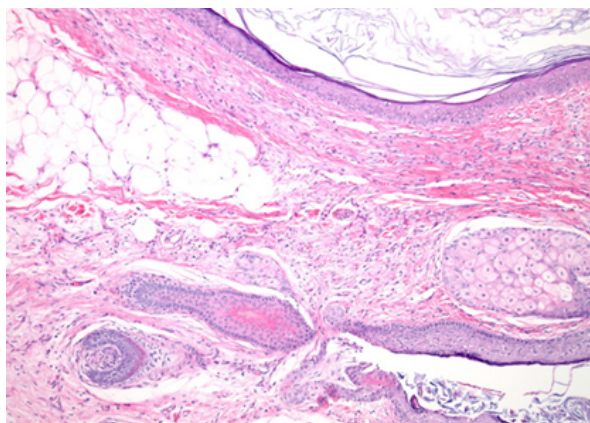


Image – 6: 10X [H & E]: Mature Cystic Teratoma: Cyst lined by stratified squamous epithelium containing keratinous material, Hair follicle with sebaceous gland & Adipose tissue.



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