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HISTOPATHOLOGICAL SPECTRUM OF HYSTERECTOMY SPECIMENS IN A TERTIARY CARE HOSPITAL

Histopathology

Dr. Meghaparna Gogoi* Post Graduate Trainee*Corresponding Author

Dr. Pranita Medhi HOD & Professor, Department Of Pathology, Amch, Dibrugarh, Assam.

ABSTRACT

Hysterectomy remains one of the most commonly performed gynaecological surgeries worldwide, with a prevalence of 11.4% in India, particularly among women aged 45–59 years. The present study analysed the histopathological spectrum of lesions in hysterectomy specimens and correlated them with age distribution, type of hysterectomy, and clinical indications. Among the 438 cases studied, 420 (95.89%) were non-neoplastic, while 18 (4.10%) were neoplastic lesions. The majority of patients belonged to the 35–45 years age group and abdominal hysterectomy was the most frequently performed procedure. Fibroid uterus was found to be the commonest indication for surgery. Proliferative endometrium was the predominant endometrial pattern observed, while leiomyoma was more common than adenomyosis. Chronic cervicitis emerged as the most frequent incidental cervical lesion, and simple follicular cyst was the most common ovarian pathology. No significant lesions were identified in the fallopian tubes on histopathological examination.

KEYWORDS

Hysterectomy, Leiomyoma

INTRODUCTION

The uterus is a vital reproductive organ that is prone to wide range of disorders, many of which contribute significantly to morbidity and mortality rates in women. The endometrium and myometrium which make up the uterus are constantly driven by hormones, inhabited by fetuses and undergoes monthly loss of endometrial mucosa.[1] The prevalence of hysterectomy among women in India is 11.4% with highest prevalence amongst women 45-59 years.[2] Despite the availability of several therapeutic alternatives, hysterectomy remains a common course of therapy globally. [3] The first partial hysterectomy was performed in Manchester, England, in 1843 by Charles Clay, and in 1929, the first total abdominal hysterectomy was performed.[4]

AIMS & OBJECTIVES

i/ To analyse the spectrum of lesion patterns in hysterectomy specimens.
ii/ To correlate with age distribution, hysterectomy type and clinical indications.

MATERIALS & METHODS

This retrospective hospital based study was carried out over 1 year (from June 2024 to May 2025) at the department of pathology, Assam Medical College & Hospital, Dibrugarh, Assam. A total of 438 cases of hysterectomy were studied.

RESULTS

An analysis of 438 cases of hysterectomy revealed that abdominal hysterectomy was the most common type of hysterectomy performed, with a maximum age range of 35 years to 45 years. Leiomyoma was the most prevalent myometrial lesion, accounting for 215 (49.08%) cases, followed by adenomyosis, accounting for 80 (18.26%) cases.18 cases of malignant tumors were noted: five cases of endometrial carcinoma, two cases of leiomyosarcoma, two cases of gestational choriocarcinoma, one case of malignant brenner tumour, six cases of high-grade serous carcinoma of ovary and two cases of mucinous cystadenocarcinoma of the ovary.

TABLE 1: Age distribution of hysterectomy specimens (N=438)

Age group	Number of cases (N)	Percentage (%)
25-35 yrs	35	7.99%
35-45 yrs	231	52.73%
45-55 yrs	97	22.14%
55-65 yrs	65	14.84%
65-75 yrs	10	2.28%

Table 2: Distribution of histological findings of endometrium (N =438)

Histopathological diagnosis	Number of cases (N)	Percentage(%)
Proliferative phase	180	41.09%
Secretory phase	74	16.89%
Endometrial hyperplasia without atypia	21	4.79%
Endometrial hyperplasia with atypia	4	0.91%
Endometrial polyp	8	1.82%
Atrophic endometrium	144	32.87%
Endometrial carcinoma	5	1.14%
Choriocarcinoma	2	0.45%

Table 3: Distribution of myometrial lesions diagnosed on histopathology (n=438)

Histopathological diagnosis	Number of cases (N)	Percentage(%)
Leiomyosarcoma	2	0.45%
Leiomyoma	215	49.08%
Adenomyosis	80	18.26%
Leiomyoma + adenomyosis	61	13.92%
Normal histology	80	18.26%

Table 4: Distribution of ovarian lesions diagnosed on histopathology (n= 438)

Histopathological diagnosis	Number of cases (N)	Percentage(%)
Follicular cyst	72	16.4%
Luteal cyst	19	4.33%
Serous cystadenoma	27	6.16%
Serous adenocarcinoma	6	1.36%
Mucinous cystadenoma	8	1.82%
Mucinous adenocarcinoma	2	0.45%
Brenner tumour	1	0.22%
Mature teratoma	7	1.59%
Normal histology	296	67.57%

DISCUSSION

In the present study, out of 438 cases, 420 (95.89%) cases were non-neoplastic and 18 (4.10%) cases were neoplastic. In the current study, women between the ages of 35 and 45 years were the most frequently subjected to hysterectomies, which is similar to the study done by Dolon et.al [5]In the present study, abdominal hysterectomy represented 296 (67.57%) cases and was the surgical procedure performed most frequently, while vaginal hysterectomy accounted for 142 (32.42%) resembling the studies by Sachin et al. [6]. In our study, fibroids were the most frequent indication of hysterectomy, followed by uterovaginal prolapse, abnormal menstrual cycles, and abdominal masses. According to a study conducted in the United States by Broder et al. [7], fibroids (60%) and prolapse (11%) were the two most common indications. The proliferative endometrium 180 (41.09%)

cases was the most frequent endometrial lesion identified in the present study, followed by the atrophic endometrium 144(32.87%) cases, which was frequently observed in postmenopausal women with uterovaginal prolapse similar to the finding of Patil etal. [8].In our study, leiomyoma was shown to be more frequent than adenomyosis, which has also been observed in studies by Neelgund et al. [9]. In our study, the most frequent incidental finding, chronic cervicitis, was observed in 78.99% of the patients analogous to the studies done by Patil et al. [10]. The most frequent ovarian lesion observed was a simple follicular cyst, which is consistent with other previous studies by Nausheenet al. [3]. In the current study, a histopathological evaluation of the fallopian tubes revealed no abnormal lesions.Most of the preoperative clinical diagnoses in our study were supported by histopathological reports, with a proportion ranging from 70% to 100%. Jaleel et al. [12] reported findings that are almost identical to ours. The preoperative clinical diagnosis of fibroid, adenomyosis, dermoid cyst and uterovaginal prolapse shows 100% correlation with histopathological reports.

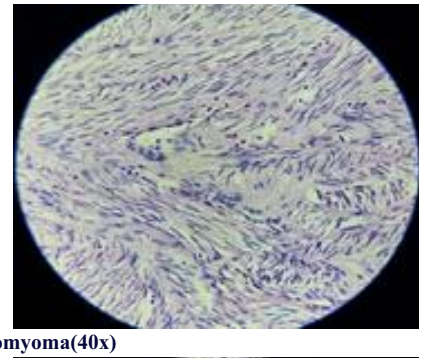

Fig 1: Leiomyoma(40x)

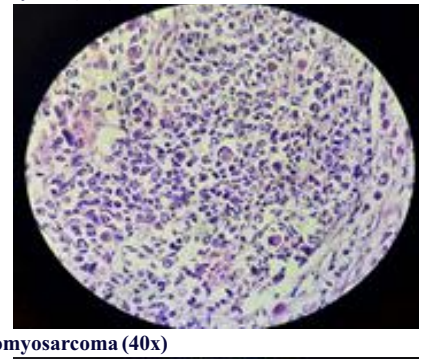

Fig 2: Leiomyosarcoma (40x)

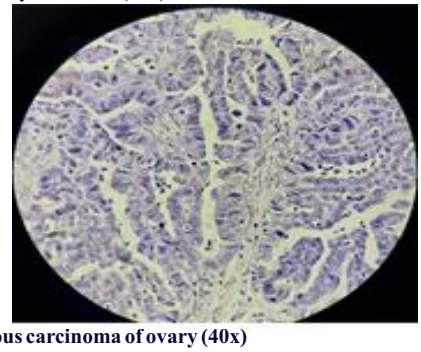

Fig 3: Serous carcinoma of ovary (40x)

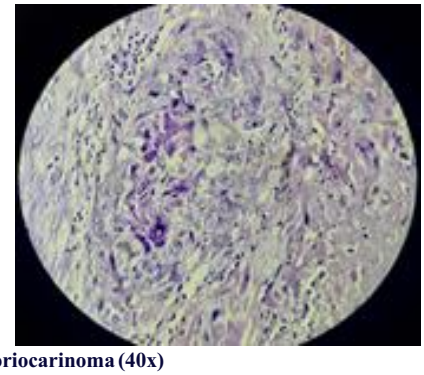

Fig 4: Choriocarinoma (40x)

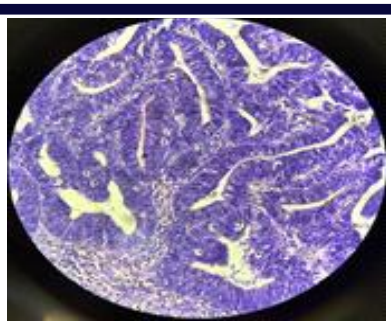

Fig 5:Endometrial carcinoma(40x)

CONCLUSION

In conclusion, hysterectomy specimens were predominantly non-neoplastic, with fibroid uterus being the most common indication for surgery. The majority of patients belonged to the perimenopausal age group, and abdominal hysterectomy was the most frequently performed procedure. Common histopathological findings included proliferative endometrium, leiomyoma, chronic cervicitis, and simple follicular cysts. A strong correlation was observed between clinical and histopathological diagnoses. Incidental pathological findings were also frequently identified on microscopic examination. These results underscore the diagnostic value of routine histopathological assessment. Overall, it remains essential for confirming clinical impressions and ensuring optimal patient care.

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