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Original Research Article

Histopathological analysis of hysterectomy specimens in a tertiary care centre: study of 160 cases

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ABSTRACT

Background: Hysterectomy is the most commonly performed gynaecological surgery as the female reproductive system has been affected by various non-neoplastic and neoplastic conditions during the life time of a woman.
Methods: This retrospective study was conducted on 160 hysterectomy specimens reported to Department of Pathology. They were compared in terms of age of the patients and pathology of hysterectomy specimens. The histopathological findings of hysterectomy specimens was noted and these findings were then correlated with clinical diagnosis. The aim of the study was to evaluate the wide range of pathological lesions, commonest pathology involved and correlation of the preoperative clinical diagnosis with the histopathological diagnosis in the hysterectomy specimens.
Results: The most common type of hysterectomy was total abdominal hysterectomy with bilateral salpingo-ophorectomy with 102 cases (63.7%). Peak incidence at 5th decade of life in 92 cases (57.5%) was noted. The most common clinical indication was fibroid uterus in 81 cases (50.6%). Proliferative phase of endometrium was the commonest finding in 87 cases (54.3%). In case of myometrium, 95 leiomyomas were noted. On histomorphological study of cervical lesions, chronic cervicitis was commonest finding in 75 (46.8%) cases.
Conclusions: Few double pathologies can be missed clinically so clinico-pathological correlation in all cases of hysterectomy has been proved to be important to improve the clinical outcome and post-operative management.

Keywords: Cervix, Endometrium, Hysterectomy, Myometrium

INTRODUCTION

The female genital tract includes the uterine corpus and cervix, the uterine corpus consists of endometrium and myometrium.[1] Uterus, a vital reproductive organ is subjected to many benign and malignant pathologies.[2] The uterine corpus under hormonal influence is, denuded monthly of its endometrial mucosa. The lesions of the uterine corpus and cervix account for most patient visits to gynaecologists.[3] Many treatment are available nowadays including medical and conservative surgical procedures but hysterectomy remains the most preferred method to manage gynaecological disorders.[4]

Hysterectomy is the removal of the uterus and it is the most common gynecological procedure performed in the females worldwide, as it is affected by various non-neoplastic and neoplastic conditions during the life time of a woman.[5] It should be performed when the risk of preserving the uterus is greater than it's removal or when the disabling symptoms for which there is no successful medical treatment.[6]

This study is entitled to study various gross and histopathological findings in uterus and cervix of the hysterectomy specimens received and their clinicopathological correlation.

METHODS

The present study was a retrospective study of the gross and histopathological findings of uterus and cervix in 160 hysterectomy specimens received in the Department of Pathology, Government Medical College, Jammu over a period of one year from May 2016 to April 2017. All hysterectomy specimens with uterine and cervical indications for hysterectomy irrespective of route and type of surgery were included in the study.

The hysterectomy specimens received were immediately transferred into 10% fresh formalin. After 24 hours fixation, the specimen was examined grossly and necessary sections were obtained from uterus that includes endometrium, myometrium, ectocervix and endocervix. Additional bits were taken depending on the pathology present.

The tissue pieces were then processed in tissue processor and then paraffin blocks were made and care was taken to ensure proper labelling of the paraffin blocks.

Approximately 2-3µ thick sections were cut with the help of microtome and were stained routinely by Hematoxylin and Eosin stain and special stains were used wherever necessary.

The histopathological findings of uterus and cervix were then noted and these findings were then correlated with clinical diagnosis.

Requisition form without proper clinical information or particulars of the patient were excluded. Analyzable data from histopathology database were analysed using SPSS 16.0 version.

The study was aimed to evaluate the wide range of pathological lesions and commonly involved pathology in the hysterectomy specimens and correlation of the preoperative clinical diagnosis with the histopathological diagnosis.

RESULTS

The present study was undertaken in Department of Pathology, Government Medical College, Jammu. A total of 160 hysterectomy specimens were analysed in the histopathology section of the department over a period of one year.

The most common type of hysterectomy was total abdominal hysterectomy with bilateral salpingo-ophorectomy with 102 cases (63.7%). Least number of cases were of vaginal hysterectomy in 20 cases (12.5%) (Figure 1).

Age of patients ranged from 21 to 75 years with peak incidence at 5th decade of life in 92 cases (57.5%), followed by 4th decade with 44 cases (27.5%). Only one case at young age i.e., 21 years was reported and the cause was placenta previa (Figure 2).

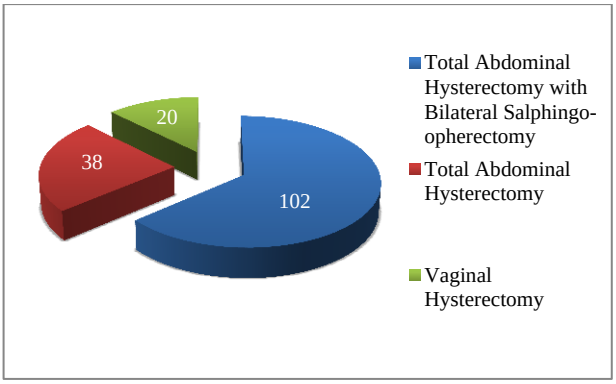

Figure 1: Distribution on basis of type of hysterectomy.

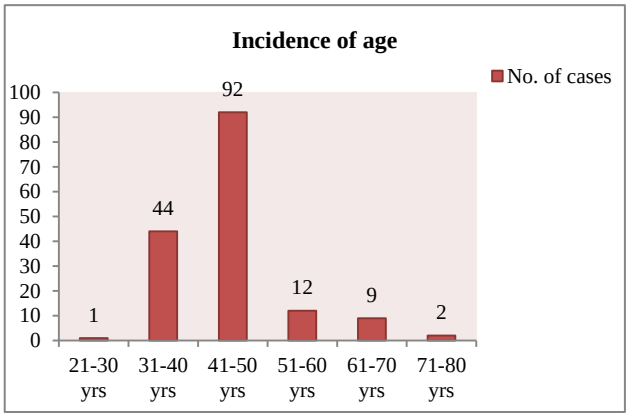

Figure 2: Age distribution of all hysterectomies.

The most common clinical indication included fibroid uterus in 81 cases (50.6%), followed by utero-vaginal prolapse with 40 cases (25%). Only one case of abdominal mass was encountered in the study that turned out to be endometrial adenocarcinoma (Table 1).

In case of endometrial findings, proliferative phase of endometrium was the commonest finding in 87 cases (54.3%), followed by senile endometrium in 40 cases (25%). Two cases (1.2%) of endometrial carcinoma were also noted. Endometrial polyp was seen in 3 cases (Table 2).

Table 1: Clinical indication of hysterectomies.

Clinical indication	No. of cases	%
Fibroid	81	50.6
Utero-vaginal prolapse	40	25
Adenomyosis	17	10.6
Abnormal uterine bleeding	16	10
Endometrial polyp	6	3.7
Abdominal mass	1	0.6

Table 2: Histopathological findings in endometrium.

Histopathological diagnosis	No. of cases	%
Proliferative phase	87	54.3
Senile endometrium	40	25
Secretory phase	14	8.75
Basal endometrium	10	6.2
Endometrial polyp	3	1.8
Chronic endometritis	2	1.2
Simple hyperplasia	2	1.2
Endometrial adenocarcinoma	2	1.2

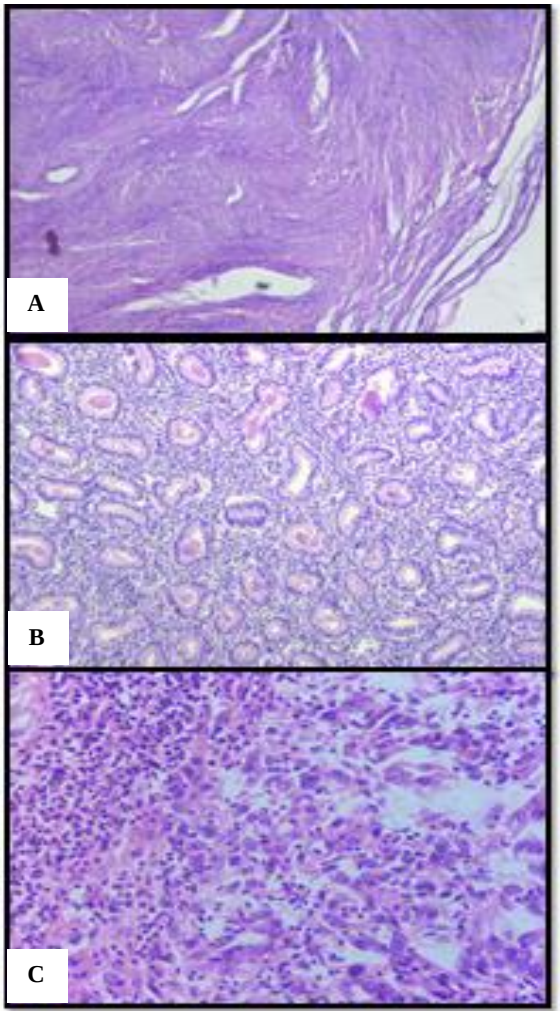

Figure 3: (A) Leiomyoma (H&E; 10X); (B) simple endometrial hyperplasia (H&E; 10X) and (C) endometrial carcinoma showing tumor cells having pleomorphism (H&E: 40X).

In case of myometrium, 95 leiomyomas were noted, followed by adenomyosis in 37 cases. In case of leiomyomas, 3 were benign cellular leiomyomas and 2 cases showed degenerative changes. Four cases showed unremarkable myometrium and the cause was utero-vaginal prolapse. Two case of adenomyoma were also studied. In one case, myometrium was invaded by adenocarcinoma (Table 3).

On histomorphological study of cervical lesions, chronic cervicitis was commonest finding in 75 (46.8%) cases, followed by utero-vaginal prolapse and unremarkable cervix in 47 cases and 20 cases, respectively (Table 4).

Table 3: Histopathological findings in myometrium.

Histopathological diagnosis	No. of cases	%
Leiomyoma	95	59.3
Adenomyosis	37	23.1
Adenomyosis and leiomyoma	21	13.1
Unremarkable	4	2.5
Adenomyoma	2	1.2
Adenocarcinoma	1	0.6

Table 4: Histopathological findings in cervix.

Histopathological diagnosis	No. of cases	%
Chronic cervicitis	75	46.8
Utero-vaginal prolapse	47	29.3
Unremarkable	20	12.5
Papillary endocervicitis	10	6.2
Chronic cervicitis with squamous metaplasia	8	5

DISCUSSION

Hysterectomy is the most commonly performed surgery in gynaecological practice as it provides definitive cure and accurate diagnosis. The clinical indications to perform this major surgery should always be justified as it has its own psychological, emotional, medical, hormonal and sexual effects on a females life. So, here comes the role of histopathological analysis to evaluate the appositeness of the hysterectomy.

In this study, 160 hysterectomies were analysed histopathologically which were submitted in the Department of Pathology, Government Medical College, Jammu, over a period of one year.

The most common route of hysterectomy was total abdominal hysterectomy with bilateral salpingoo-phrectomy (102; 63.7%) followed by total abdominal hysterectomy (38; 23.7%). Similar observations were made by Ajmera et al and Patil et al.[3,7]

The most common age group was 41-50 years in the present study which was in concordance with Domblae et al, Patil et al and many others.[3,8]

In this study the most common clinical indication was fibroid (81; 50.6%), Ajmera et al and Archana et al have the similar findings, but Shakira et al and Sobande et al showed discordance with our study.[7,9-11]

In our study most common finding in endometrium was proliferative phase, myometrium was leiomyoma and cervix was chronic cervitis which was comparable with other studies conducted by Patil et al and Khunte et al.[3,12] Verma et al had similar findings in endometrium and cervix but in myometrium adenomyosis was most common in his study.[13]

CONCLUSION

This study signifies the fact that even if the gross appearance of the specimen is normal, a few incidental finding makes it really important to histopathological analysis all hysterectomy specimens. Also some double pathologies can be missed clinically so clinico-pathological correlation in all cases of hysterectomy has been proved to be important to improve the clinical outcome and post-operative management.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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