How to Cite:
Rawat, N., Tignath, A., Jain, A., Soni, S., & Agrawal, M. (2022). Histopathological spectrum of uterine lesions in hysterectomy specimens. *International Journal of Health Sciences*, *6*(S6), 11176–11180. https://doi.org/10.53730/ijhs.v6nS6.13085

Histopathological spectrum of uterine lesions in hysterectomy specimens

Dr. Niharika Rawat
Assoc. Prof., Department of Pathology, PCMS & RC, Bhopal, M.P.

Dr. Aditya Tignath
Asst. Prof., Department of Pathology, PCMS & RC, Bhopal, M.P.,
*Corresponding author email: adi210188@gmail.com

Dr. Ankit Jain
Asst. Prof., Department of Surgery, Mahaveer Institute of Medical Sciences, Bhopal, M.P.

Dr. Swati Soni
Asst. Prof., Department of Pathology, PCMS & RC, Bhopal, M.P.

Dr. Megha Agrawal
Senior Resident, Department of Pathology, PCMS & RC, Bhopal, M.P.

Abstract---Introduction: The most common complaint of women visiting hospital in the gynaecological outpatient department is abnormal uterine bleeding. Our aim is to do a retrospective study and analyze the histopathological specimen of patients undergoing hysterectomy with complaint of vaginal bleeding. Material and Methods: All hysterectomy specimens fixed in 10% formalin received in the department of pathology were examined and studied for histopathological diagnosis. Specimens were grossed, paraffin embedded tissue sections were prepared and stained with hematoxylin and eosin for microscopic examination. Results: A total of 55 hysterectomies specimen were received in the Department of pathology in a study period of 1 year. Out of 55 patients 2 patients underwent unilateral salpingo-oopherctomy and 12 patients underwent bilateral salpingo-oopherectomy. Most common findings after histopathological study were chronic cervicitis in 48(87.3%) followed by leiomyoma in 20(36.4%), adenomyosis in 12 (21.8%) and endometrial hyperplasia in 2 (3.6%) women. Cervical malignancies were observed in 2 cases. Patients undergoing salpingo-oopherectomy showed cystic changes in 7 ovaries with corpus luteal cyst in 3 cases and 3 follicular cyst in cases. Fallopian tube were pathologically unremarkable in most cases with paratubal cyst in 1 case. Ovarian

neoplasm were reported in 1 patient. Conclusion: The present study concludes that majority of the cases reported were benign in nature and Hysterectomy procedure in these patients improved quality of life. Study Design: Observational Study.

Keywords---histopathological, spectrum, uterine, hysterectomy.

Introduction

Bleeding per vagina is one of the most common complaint of women in reproductive and post-menopausal age group visiting the gynaecology outpatient department. Hysterectomy is a common surgical procedure performed in gynaecology after cesarean section for diseases related to female reproductive system worldwide[1].Diseases of the female reproductive system can be broadly classified into inflammatory and neoplastic, with neoplastic further divided into benign and malignant lesions. These lesions include endometritis, chronic cervicitis, salpingitis, endometrial hyperplasia , leiomyoma , adenomyosis , polyps and malignancies. Despite availability of medical management of some of these diseases hysterectomy remains a common surgical procedure done for various lesions of uterus[2].Hysterectomy can be performed by abdominal, vaginal or laproscopic method for various non-neoplastic and neoplastic lesions of uterus. Various terminologies are used for this procedure like hysterectomy (removal of uterus and cervix) or hysterectomy with salpingo-oopherectomy (uterus cervix removal with either unilateral or bilateral adnexa [3&4].

Materials and Methods

A retrospective study was done in the Department of Pathology, Peoples College of Medical Sciences and Research Centre, Bhopal for a period of 1 year. A complete personal details and clinical history of the patient were noted along with additional investigations of PAP smear, biopsy or ultrasound (if available). All hysterectomy specimens received in the department of pathology were fixed in 10% formalin followed by detailed grossing of the specimen. Tissue sections (one from each) were taken from ectocervix, endocervix, endometrium, myometrium, endo-myometrial junction along with additional sections for leiomyoma and adenomyosis respectively. One section were taken from both ovaries and cross-section from both fallopian tubes if grossly unremarkable. Additional sections from ovary and tube were taken if any lesion is present. The tissue sections were processed in automated tissue processor followed by paraffin block preparation, section cutting and slide preparation. The slides were stained by Hematoxylin and eosin stain followed by microscopic examination and various histopathological findings were noted for the specimen. The lesions of uterine corpus were categorized as follows:

- Lesions of endometrium
- Lesions of myometrium
- Lesions of cervix
- Lesions of adnexa

Results

Table 1
Histopathological spectrum of uterine lesions in hysterectomy specimens

	Histopathological findings	No of patients (55)	Percentage %	P Value
Endometrium	Physiological	47	85.5%	< 0.00001
	Atrophic	06	10.9%	
	Hyperplasia	02	3.6%	
Myometrium	Leiomyoma	20	36.4%	
	Adenomyosis	12	21.8%	
	Unremarkable	23	41.8%	
Cervix	Chronic Cervicitis(CC) CC with Nabothian Cyst CC with Endocervical Polyp CC with Metaplastic Changes	26 13 03 06	47.3% 23.6% 5.5% 10.9%	
	Unremarkable	05	9.1%	
	Carcinoma Intraepithelial Neoplasia-II	01	1.8%	
	Squamous Cell Carcinoma	01	1.8%	

The chi-square statistic is 57.473. The *p*-value is < 0.00001. The result is significant at $p < .05$.

Table 2
Histopathological spectrum of ovaries lesions in hysterectomy specimens

	Histopathological findings	No of cases (14)	Percentage %	P Value
Ovaries	Unremarkable	07	50%	.048047
	Follicular Cyst	03	21.4%	
	Luteal Cyst	02	14.4%	
	Serous Cyst	01	7.1%	
	Teratoma	01	7.1%	

The chi-square statistic is 0.4978. The *p*-value is .048047. The result is significant at $p < .05$.

Table 3
Histopathological spectrum of Fallopian Tube lesions in hysterectomy specimens

	Histopathological findings	No. of cases (14)	Percentage	P Value
Fallopian tubes	Unremarkable	13	92.8%	.236724
	Paratubal Cyst	01	7.2%	

The chi-square statistic is 1.4. The *p*-value is .236724. The result is *not* significant at $p < .05$.

During a period of one year 55 hysterectomy specimens were received in the department of pathology with most common indication of hysterectomy was abnormal uterine bleeding. Out of 55 hysterectomy specimens, 2 specimens have unilateral salpingo-oopherectomy and 12 have bilateral salpingo-oopherectomy. Age of the patient undergoing hysterectomy ranges from 35 to 70 years. Chronic cervicitis was the most common histopathological finding in 48 specimens along with Nabothian cysts were noted in 13 cases and metaplastic changes in 6 cases. Uterine corpus showed physiological endometrium in 47 cases, adenomyosis in 12 cases and endometrial hyperplasias in 2 cases followed by few cases of atrophic endometrium (6 cases). Leiomyoma was noted in myometrium in 20 cases followed by adenomyosis in 12 cases. Histopathologically, 2 cases showed corpus luteal cyst in ovaries and 3 cases showed follicular cyst. Fallopian tubes were pathologically unremarkable in most of the cases with paratubalcyst reported in 1 case.

Discussion

The present study was conducted in our institute to analyse the different histopathological lesions in hysterectomy specimens and co-relate it with the clinical indications for hysterectomy procedure. In the present study maximum number of patients i.e. is 41.3% were seen in the age group of 41-50 years [5]. Most common surgical procedure for hysterectomy was Abdominal Hysterectomy (79%, n=43) and Vaginal hysterectomy (21%, n=12) that is in concordance with the study done by Ajmera et al [6] in which abdominal approach was done in 54.4% cases and vaginal was done in 38.9% cases. The most common complaint for patients in reproductive age group seeking gynaecological consultation is discharge per vaginum as reported by Singh AJ [7]. Other symptoms are pain in abdomen, irregular menses, bleeding per vagina, prolapse, itching in private parts and infertility.

The most common indication for hysterectomy was Abnormal Uterine Bleeding constituting 39.3% of cases that is in concordance with the study done by Sucheta KL et al [8]. Chronic cervicitis was the most common histopathological lesion in cervix as also reported by Gousia Rahim Rather et al [9].Nabothian cyst was also a common finding in association with chronic cervicitis followed by metaplastic changes. Malignancy in cervix was reported only in 2 cases. The commonest histopathological lesion reported in myometrium was leiomyoma in 36.4% cases which is similar to other studies where incidence rate was noted amongst 39.9% patients[10] followed by adenomyosis in 21.8% cases. In the present study, physiological endometrial changes were noted in 85.5% cases followed by endometrial hyperplasia in 3.6% cases which is similar to other study done in India where endometrial hyperplasia was reported in 5.5% cases[11]. Adnexa in present study show follicular cyst in 3(21.4%) cases, luteal cyst in 2(14.4%) cases and serous cyst in 1(7.1%) cases.1 case of Benign cystic teratoma was reported. Fallopian tube was pathologically unremarkable in 92.8% cases.

Conclusion

From the present study it was concluded that most of the lesions reported in hysterectomy specimen is benign in nature require no further follow up after

surgery. Hysterectomy is a common surgical procedure performed for Abnormal uterine bleeding that improves quality of life in patient.

References

1. Ajmera sachin K, Mettler L, and Jonat W. Operative spectrum of hysterectomy in a German university hospital. J Obstet Gynecol India. 2006;56(1):59-63.
2. Ajmera SK, Mettler L, Jonat W. Operative spectrum of hysterectomy in a German university hospital. J ObstetGynecol India. 2006;56:59-63.
3. Chhabra S, Sonak M, Prem V, Sharma S. Gynaecological malignancies in a rural institute in India. J Obstet Gynaecol. 2002; 22(4):426-429.
4. KL et al. Hysterectomy: clinical profile, indications and postoperative complications. Int J Reprod Contracept Obstet Gynecol. 2016 Jul;5(7):2093-2096.
5. Nausheen F, Iqbal J, Bhatti FA, Khan AT, Sheikh S. Hysterectomy: The patient's perspective . Annals Gynecol.2004;10:339-41.
6. Pandey D, Sehgal K, Saxena A, Hebbar S, Nambiar J, Bhat RG. An audit of indications, complications and justification of hysterectomies at a teaching hospital in India. International Journal of Reproductive Medicine.
7. Ramachandran TS, Sinha R, Subramanium. Correlation between clinic pathological and ultrasonographic findings.Journal of Clinical Diagnosis and Research. 2011;5:734-40.
8. Rather GR, Gupta Y, Bardhwaj S. Pattern of lesions in hysterectomy specimens: Aprospective study. J K Science. 2013;15(2):63-8.
9. Rather RG, Gupta Y, Bardhwaj S. Pattern of lesion in Hysterectomy Specimens. A Prospective Study. JK SCIENCE 2013; 15(2):63-68.
10. Singh AJ. Vaginal discharge: Its causes and associated symptoms as perceived by rural North Indian wo Patel V, Weiss HA, Kirkwood BR, Pednekar S, Nevrekar P, Gupte S et al. Common genital complaints in women: the contribution of psychosocial and infectious factors in a population based cohort study in Goa, India. International Journal of Epidemiology 2006; 35: 1478- 1485.men. Indian J Commun Med 2007;32:22-6.
11. Wechter JM, Wu ME, Geller EJ, Nguyen TV, Visco AG. Hysterectomy rates in the United States, 2003, Obstetrics and Gynecology. 2007;110(5):1091–1095.