



PATTERN OF HISTOPATHOLOGICAL LESIONS IN HYSTERECTOMY SPECIMENS

Dr. Monika Jindal

Assistant Professor, Department of Obstetrics and Gynaecology, Chandulal Chandrakar Memorial Medical College, Kachandur, Durg, Chhattisgarh

Dr. Rekha Ratnani

Professor, Department of Obstetrics and Gynaecology, Chandulal Chandrakar Memorial Medical College, Kachandur, Durg, Chhattisgarh.

ABSTRACT

Background: Hysterectomy is one of the common gynecological surgical procedures throughout the world. The objective of this study was to see the pattern of histopathological lesions in hysterectomy specimens. **Material &**

Methods: This retrospective descriptive study was conducted in Chandulal Chandrakar Memorial Medical College from January 2014 to August 2016. A total of 774 hysterectomies were included in the study. **Results:** A total of 774 hysterectomies were included in this study with an age range from 25 to 70 years. The most common age encountered was between 40-49 years, 544 cases (70.3 %). The commonest histopathological lesion was chronic cervicitis 643 (83.1%) followed by leiomyoma 227 cases (29.3%), adenomyosis 160 (20.7 %) whereas malignant tumours were carcinoma cervix 50 (6.5%), ovarian tumours 14 (1.8%), endometrial adenocarcinoma 3 (0.4%), leiomyosarcoma 3 (0.4%) and endometrial stromal sarcoma 2 (0.3%). **Conclusion:** All hysterectomy specimens should be sent for histopathological examination regardless of the pre-operative microscopic assessment, especially in malignant disease.

KEYWORDS : Hysterectomy; Histopathology; Leiomyoma; Adenomyosis; Adenocarcinoma; Endometrial stromal sarcoma; Leiomyosarcoma; Carcinosarcoma.

Introduction

The uterus is subject to variety of disorders i.e. inflammatory, hyperplastic and neoplastic, both benign and malignant. Common inflammatory and noninflammatory lesions are acute and chronic endometritis, tuberculosis, endometrial atrophy and retained products of conception respectively. The hyperplastic lesions are simple and complex hyperplasia and endometrial polyps. The benign neoplasms of myometrium are leiomyoma and adenomyosis. The malignant lesions of endomyometrium are various endometrial adenocarcinomas, stromal sarcomas, leiomyosarcomas and carcinosarcomas.^{4,12}

The common complaints in reproductive and post menopausal age groups are menorrhagia/ per vaginal bleeding, abdominal mass or vaginal discharge, for which these patients seek medical advice and treatment, and in case of failure of conservative treatment, either general surgeons or gynecologists are consulted for hysterectomy especially if her family is complete, also most of the time the patients demands for removal of uterus to get rid of the monthly disturbances and the common complication of anemia due to increased blood loss.

Hysterectomy is the definitive treatment for most uterine pathologies like hyperplasia, leiomyoma, adenomyosis, polyps, etc, therefore hysterectomy specimens carries both diagnostic and therapeutic significance.¹³⁻¹⁵

Prevalence of gynaecological pathologies generally remains the same from nation to nation and region to region in countries with little differences, hence this study was conducted in Durg city of India keeping in view the above aspects.

Hysterectomy is one of the commonest surgical procedures in reproductive as well as post reproductive women. It is the second common surgical procedure in USA.¹⁶⁻¹⁸

The objective of this study was to see the pattern of histopathological lesions in hysterectomy specimens.

MATERIAL AND METHODS

This retrospective descriptive study was carried out at the Department of Obstetrics and Gynaecology, Chandulal Chandrakar Memorial Medical College, Durg, India from January, 2014 to August, 2016. All records were reviewed during the time frame and

774 patients were found who underwent hysterectomies during this period. The biopsy specimen were collected in 10% formalin along with properly filled request forms containing name, age, complaints i.e. menorrhagia, per vaginal bleeding, abdominal mass etc. The biopsy specimen were properly labeled and recorded.

Gross examination of the uterus i.e. size, shape, wall thickness, endometrial cavity and any mass were noted, and then two to six sections were taken from different parts of pathological specimen. The different sections taken were processed manually in different grades of ethanol followed by xylene, and wax. Blocks were prepared and freezed in refrigerator and than five micron thick sections were taken. The slides prepared were processed for staining of Hematoxylin and Eosin and lastly mounted with DPX, labeled and reported by histopathologist.

RESULTS

A total of 774 hysterectomies were included in this study. The mean age of the sample was 45.6 years over a wide age ranging from 13 to 75 years. The most common age encountered was between 40-49 years i.e. 544 cases (70.3%) were present in this age group. (Table 1) The commonest type of hysterectomy was vaginal hysterectomy 358 (46.3%) cases. (Table 2)

The commonest indication for hysterectomy was uterine fibroid 195(25.2%) followed by adenomyosis 92(11.9%).

The common histopathological lesion was chronic cervicitis 643 (83.1%) followed by Leiomyoma in 227 (29.3%), adenomyosis 160 (20.7%), carcinoma cervix 50(6.5%) and CIN (3.1%). (Table 3)

There were 8 malignancies of uterus: Leiomyosarcoma 3(0.4%), Endometrial carcinoma (0.4%) and Endometrial stromal sarcoma 2(0.3%). There were 14 cases of Ovarian tumours (1.8%). (Table 3)

DISCUSSION

Hysterectomy is the commonest gynaecological procedure in perimenopausal age throughout the world.¹ In UK and USA around 60-80% hysterectomy are abdominal, although abdominal route is more frequently associated with prolong hospital stay, high patient cost and more complications as compared to vaginal route.² Since vaginal hysterectomy carries less risk and complications, this route is encouraged especially if the disease is confined to the uterus and the uterine weight is less than 280 grams.³ Hysterectomy is the

definitive treatment for many uterine diseases as well as diseases of the fallopian tubes and adnexae.^{3,4} Histopathological examination of uterine surgical biopsies carries ethical, diagnostic and therapeutic significance, as most uterine biopsies show no gross abnormality.⁵ This study was conducted to see the pattern of histopathological lesion in our region and to compare this study with other studies. The commonest age range of hysterectomy in our study was 40-49 years that is similar to Rather et al.⁶

The commonest hysterectomy done was vaginal followed by abdominal hysterectomy similar to other studies. The commonest indication for hysterectomy was uterine fibroid followed by adenomyosis. This finding is similar to other studies. The commonest pathology that was found in our study was chronic cervicitis (83.1%). Amongst the benign myometrial pathologies, leiomyoma is the most common tumor 29.3% and the same is true for other studies.^{16,17,18}

Adenomyosis is the second most common benign myometrial pathology in our study 20.7%, other study also have reported adenomyosis the second common pathology of myometrium.^{2,4,5} Amongst the endometrial pathologies, endometrial polyp is the commonest pathology 26 (3.4%) in our study and the same is reported by Sajjad et al,⁴ where as Rather et al⁶ have reported a lower incidence. In our study endometrial atrophy 0.9% reported is lower in incidence from that reported by Gupta et al² 30.6%. The endometrial hyperplasia 25 (3.2%) in our study is also different from other studies where they have combined endometrial hyperplasia with chronic endometritis and disordered proliferation which raises the incidence in their studies.

Regarding malignant tumors which are very uncommon as compared to the benign tumors in our study, we have reported carcinoma cervix as the most common malignancy 50 (6.5%), followed carcinoma ovary 14(1.8%), three endometrial adenocarcinoma, three leiomyosarcoma and 2 endometrial stromal sarcoma. In Rather et al⁶ five cases of malignant tumors were encountered from endomyometrium out of 698 cases. Other studies like Bukhari and Sadiq have reported similar incidence of endomyometrial malignancies.¹⁰

CONCLUSION

Hysterectomy is a very commonly performed gynecological surgery. AUB with underlying pathology is the most important indication for hysterectomy with leiomyoma being the most common pathology diagnosed preclinically and histopathological examination. Hysterectomy still remains the widely used treatment modality in developed and developing countries. All hysterectomy specimens should be sent for histopathological examination regardless of the pre-operative microscopic assessment, especially in malignant disease.

Table 1: Age distribution of hysterectomies patients

S.No.	Age group in years	Number	Percentages
1	<30	3	0.38%
2	30-39	34	4.39%
3	40-49	544	70.28%
4	50-59	138	17.83%
5	60-70	53	6.84%
6	>70	2	0.26%
Total		774	100%

Table 2: Types of hysterectomy.

S.No.	Type of Hysterectomy	Number	Percentages
1	Abdominal Hysterectomy without salpingoophorectomy	125	16.15%

2	Abdominal Hysterectomy with salpingoophorectomy	43	5.56%
3	Laparoscopic Hysterectomy without salpingoophorectomy	136	17.57%
4	Laparoscopic Hysterectomy with salpingoophorectomy	30	3.88%
5	Vaginal Hysterectomy	358	46.25%
6	Exploratory laparotomy	23	2.97%
7	Radical Hysterectomy	59	7.62%
Total		774	100%

Table 3: Histopathological lesions of hysterectomies.

S.No.	Histopathological Diagnosis	Number	Percentages
1	Adenomyosis	160	20.67%
2	Chronic Cervicitis	643	83.07%
3	Leiomyoma	227	29.33%
4	CIN	24	3.1%
5	Carcinoma Cervix	50	6.46%
6	Endometrial atrophy	7	0.9%
7	Endometrial Polyp	26	3.36%
8	Endometrial Hyperplasia	25	3.23%
9	Ovarian tumour	14	1.81%
10	Endometrial carcinoma	3	0.39%
11	Leiomyosarcoma	3	0.39%
12	Endometrial Stromal Sarcoma	2	0.26%
13	Endometriosis	2	0.26%

References:

1. Abdullah SL. Hysterectomy: A Clinicopathologic Correlation. Bahrain Medical Bulletin 2006;28:1-6.
2. Gupta G, Kotasthane DS, Kotasthane VD. Hysterectomy: a clinicopathological correlation of 500 cases. J Gynecol Obstetrics 2010; 14:1-6.
3. Kovac SR. Hysterectomy outcome in patients with similar indications. Obstet Gynaecol 2002;95:787-93.
4. Sajjad M, Iltaf S, Qayyum S. Pathological findings in hysterectomy specimens of patients presenting with menorrhagia in different age groups. Ann Pak Inst Med Sci 2011; 7:160-2.
5. Kumar V, Abbass AK, Aster CJ. Female genital tract. In: Robin's pathological basis of diseases - 9 ed. Philadelphia: WB Saunders 2013; p. 628-704.
6. Rather GR, Gupta Y, Bardhwaj S. Pattern of lesions in hysterectomy specimens. J K Science 2013; 15:63-8.
7. Bhosle A, Fonseca M. Evaluation and histopathological correlation of abnormal uterine bleeding in perimenopausal women. Bombal Hosp J 2010; 52: 69-72.
8. Sarfaraz S, Tariq H. Histopathological findings in menorrhagia: a study of 100 hysterectomy specimen. Pak J Pathol 2005; 16:83-5.
9. Parveen S, Tayyeb S. A clinicopathological review of elective abdominal hysterectomy. J Surg Pak 2008; 13:26-9.
10. Bukhari U, Sadiq S. Analysis of the underlying pathological lesion in hysterectomy specimen. Pak J Pathol 2007; 18:110-12.
11. Luqman M, Bukhari L. Abnormal/ excessive uterine hemorrhage. A histopathological study. Pak J Pathol 1998; 9:20-4.
12. Jaleel R, Khan A, Soomro N. Clinicopathological study of abdominal hysterectomies. Pak J Med Sci 2009; 25:630-34.
13. Shergill SK, Shergill HK, Gupta M. Clinicopathological study of hysterectomy. J Indian Med Assoc 2002; 100:238-9.
14. Hafiz R, Ali M, Ahmad M. Fibroid as a curative factor in menorrhagia and its management. Pak J Med Res 2003; 42:90-6.
15. Makherjee SN. Role of hysterectomy and its alternative in benign uterine diseases. J Indian Medical Assoc 2008; 106:232-6.
16. Munro MG, Critchley HO, Broder MS, Fraser IS. FIGO Working Group on Menstrual Disorders. FIGO Classification system (PALM-COEIN) for causes of abnormal uterine bleeding in non-gravid women of reproductive age. Int J Gynecol Obstet 2011; 113: 3-13.
17. Jha R, Pant AD, Jha A, Adhikari RC, Syami G. Histopathological analysis of hysterectomy specimens. J Nepal Med Assoc 2006; 45:283-90.
18. Salman HA, Smith JHF, Balsitis M. Is microscopic assessment of macroscopically normal hysterectomy specimens necessary? J Clin Pathol 2002; 55:67-8.