HYSTERECTOMY: A CLINICOPATHOLOGICAL CORRELATION

Shagufta Nasir Pervez, Khalid Javed, Mehr Obaid

ABSTRACT

Objective: Histopathological pattern of lesions in abdominal hysterectomies at a tertiary care hospital.

Study Design: Retrospective Study

Place and duration: This study was conducted at the pathology department and department of gynecology & obstetrics, Hayatabad Medical complex Peshawar from Jan 2008 to Dec 2012.

Materials and Methods: 861 abdominal hysterectomy cases were included in the study. Vaginal hysterectomies and abdominal hysterectomies done for malignancies were excluded. A minimum of two sections were taken from the cervix, two from uterine corpus, one section each from small leiomyomas and two or more depending on the size from the larger lesions. Sections (3-5 μ), stained with hematoxylin and eosin (H&E) were microscopically examined and reported.

Results: 861 abdominal hysterectomy cases were included in the study. In our study 398 (51%) patients were 31-40 years age group, 373 (47.8%) from 41-50 years age group, 47 (6 %) from 51-60 years age group, 28 (3.5%) from more than 60 years age group and 15 (1.9%) were from 21-30 years age group. 216 (27.7%) cases showed leiomyomas and adenomyosis in 146 (18.7%) cases. While 150 (19.2%) cases revealed dual pathology of both leiomyomas and adenomyosis. In 85 (0.9%) of cases no gross or microscopic abnormality was detected.

Conclusion: Uterine fibroids and adenomyosis were the most common benign lesions. The peak incidence was between 31-40 years age group. These two lesions most frequently occur together. Histopathology is mandatory for confirming diagnosis. Clinicopathological correlation is important.

Key words: Hysterectomy, Leiomyomas, Adenomyosis, Histopathology

INTRODUCTION

Hysterectomy is the commonest gynecological surgery in pre and post-menopausal women all over world [1].It is being performed for many indications particularly most benign gynecological lesions and dysfunctional uterine bleeding [2]. Charles Clay performed the first subtotal hysterectomy in Manchester, England in 1843 and first total abdominal hysterectomy in 1929[3]. Since early 20th century, hysterectomy is a definitive treatment of pelvic pathology including fibroid, abnormal heavy bleeding, chronic pelvic pain, endometriosis, adenomyosis, uterine prolapse, pelvic inflammatory disease and cancer of reproductive organs[4]. Approximately 60-80% of hysterectomies in the USA and the UK are abdominal [5]. Eighty-three percent of gynecologists recommend oophorectomy in postmenopausal women, 50% in premenopausal women and <5% in premenopausal women at the time of hysterectomy[6, 7].

This study was designed to analyze relationship between clinical indications for hysterectomy and postoperative histological findings [8]. Our work is also a review of the pattern of uterine pathologies at hysterectomy in order to identify the most common uterine pathologies in this region.

Department of Pathology, IKD/HMC Peshawar

Address for Correspondence
Shagufta Nasir Pervaiz
Department of Pathology,IKD/HMC Peshawar
Cell: 03339143567
E mail: shaguftapervez_3@yahoo.com

MATERIALS & METHODS

All hysterectomy specimens with and without salpingo-oophorectomy done at the department of Gynecology Hayatabad Medical Complex from January 2008 to December 2012 was reviewed at the histopathology department. Specimen reports were retrieved by computer search. All histopathology reports in our department include the clinical history provided on the specimen request form. The clinical history was noted and cases were excluded if the indication for removal was malignant disease or if there was any previous history of neoplastic disease. The macroscopic description of the included cases was reviewed.

RESULTS

861 abdominal hysterectomy cases were included in the study. In our study 398 (51%) patients were 31-40 years age group, 373 (47.8%) from 41-50 years age group, 47 (6 %) from 51-60 years age group, 28 (3.5%) from more than 60 years age group and 15 (1.9%) were from 21-30 years age group. 216 (27.7%) cases showed leiomyomas and adenomyosis in 146 (18.7%) cases. While 150 (19.2%) cases revealed dual pathology of both leiomyomas and adenomyosis. In 85 (0.9%) of cases no gross or microscopic abnormality was detected.

Table 1: Clinical indications for hysterectomies

Clinical indication	No of cases	Percentage
Polymenorrhagia	346	44.4%
Menorrhagia	276	35.4%
DUB	164	21.5%

Table 2: Number of cases according to age group

Age	Number of cases	Percentage
21-30	15	1.9
31-40	398	51
41-50	373	47.8
51-60	47	6
61&above	28	3.5

Table 3: Pattern &Frequency of Uterine pathologies identified in 779 Hysterectomy cases

Histopathological diagnosis	Number of cases	Percentage
Leiomyoma	216	27.7%
Leiomyoma & Adenomyosis	150	19.2%
Adenomyosis	146	18.7%
Endometrial pathology	135	17.3%
Endometrial polyps	50	6.4%
Chronic endometritis	43	5.5%
Simple cystic hyperplasia	23	2.9%
Malignancies	23	2.9%
Endocervical polyps	15	1.9%

Table 4: Histological findings in different studies

Study	Leiomyoma	Adenomyosis	DUB
Parveen et al	59.2%	24%	
Ahsan et al	36%	30%	
Tahira et al	41.7%	10.4%	22.6%
Madiha et al	39%	19%	22%
Qamar et al	17%	9.6%	21.4%
Mahreen et al	8.8%	6.2%	83%
Rahat et al	51%	30%	
Gupta et al	34%	10.89%	7.72%
Sobande et al	25.8%	22.7%	
Shergill et al		26%	26%
Vavillis et al	20.5%	19.5%	
Our study	27.7%	18.7%	10.9%

DISCUSSION

Hysterectomy specimens contribute a major component of histopathological work in our laboratories. The indications for hysterectomy in this study for the majority of cases, was menorrhagia, polymenorrhagia and dysfunctional uterine bleeding. This is in accordance with the studies carried out in various parts of the country.[8,9,10]. Most common histopathological findings in our study were leiomyomas followed by adenomy-

osis and dysfunctional uterine bleeding. These results generally are similar to the results obtained from similar studies.[8,10,11]

Leiomyoma appears to be the commonest pathology (27.7%) in our study, increasing to 46.9% when cases with concomitant adenomyosis are included. Similar results have been reported from several national and international studies as shown in (tab 4)[10,11,12,13,14,15,16,17,18]. Its peak age prevalence was 41-50 years (53.1%) and most of our patients are multipara (89%). This phenomenon is described by Fake et al who has indicated various factors in the etiology of leiomyoma. They attribute that the rapid increase in fibroid diagnoses among women in their forties is either from increased growth of, or increased symptomatology from, already existing fibroids. In addition the likelihood of fibroid development and growth actually accelerates during the late reproductive years (19).

In this study adenomyosis was diagnosed when the distance between the lower border of the endometrium and the affected myometrial area was over one - half of a low- power field (2.5mm) which was currently accepted definition(20). Our data demonstrates that adenomyosis is a common finding present in 19.2% of the hysterectomy specimens while in combination with leiomyoma is 18.7%. The reported frequency in literature is 6.2-30 %(Tab 4).

CONCLUSION

Hysterectomy still is the widely used treatment modality for most of the gynecological problems. The ultimate diagnosis depends on the histopathological examination; therefore every operated specimen must be subjected to histopathology. Clinicopathological correlation is mandatory for optimal patient management.

REFERENCES

1. Vessey MP, Villard-Mackintosh L, McPherson K, Coulter A, Yeats D. The epidemiology of hysterectomy: findings in a large cohort study. Br J Obstet Gynecol. 1992; 99: 402-7.
2. Clayton RD. Hysterectomy. Best practice and Research. Clinical Obstet Gynecol 2006; 20:73-87.
3. Saha R1, Sharma M2, Padhye S et al. Hysterectomy: an analysis of perioperative and postoperative complication. Kathmandu University Medical Journal (2003) Vol. 1, No. 2, 124-127.
4. Amin A, Ali A, Amin Z, Sani FN. Justification for hysterectomies and frequency of histopathological lesions of hysterectomy at a teaching Hospital in Peshawar, Pakistan. Pak J Med Sci 2013;29(1):170-172.
5. John A, Rock MD, Jhon D, Thompson MD; Telinds's Operative Gynaecology. 1st Edition Lippincott- Raven place.
6. Nausheen F, Iqbal J, Bhatti FA, Khan AT, Sheikh S. Hysterectomy: The patient's perspective. Annals Gynecol 2004; 10:339-41.
7. Gupta S, Manyonda I. Hysterectomy for benign gyaecological diseases. Current Obstet Gynaecol 2006;16:147- 53.
8. Amin A, Ali A, Amin Z, Sani FN. Justification for hysterectomies and frequency of histopathological lesions of hysterectomy at a Teaching Hospital in Peshawar, Pakistan. Pak J Med Sci 2013;29(1):170-172.
9. Simi Fayyaz and Shamim S Majeed Audit of Gynaecological Hysterectomies JPMI Vol, 15 (2) 208 -212.
10. S Parveen, S Tayyab. A clinicopathological review of elective abdominal hysterectomies. Journal of Surgery Pakistan International March 2008;13(1)
11. S.Ahsen, Naeem A, Ahsan A.A. A case note analysis of hysterectomy performed for non-neoplastic indications at Liaqat National Hospital,Karachi.J Pak Med Ass 2001;51 (10):346 -9.
12. Tahira T, Qureshi S,Roohi M. Abdominal hysterectomy; performed by postgraduate trainees, Professional Med J 2007;14(4):685-688.
13. Madiha Sajjad, Samina Iltaf, Shazia Qayyum. Pathological findings in hysterectomy specimens of patients presenting with menorrhagia in different age groups. Ann. Pak. Inst. Med. Sci. 2011;7(3):160-162.
14. Qamar un nisa,Habibullah, Tanveer A S et al. Hysterectomies: An audit at a tertiary care hospital. Professional Med J Mar 2011;18(1): 46-50.
15. Mahreen Mahmood, Khalida Wahed. Analysis of abdominal hysterectomy performed for benign gynaecological conditions in a hospital(Wah) of Pakistan. Pak AFMJ 2010;14(4)
16. G. Gupta, D.S. Kotasthane, V.D. Kotasthane: Hysterectomy: A Clinico-Pathological Correlation Of 500 Cases. The Internet Journal of Gynecology and Obstetrics. 2010 Volume 14 Number 1. DOI: 10.5580/141b
17. Sobande AA, Eskander M, Archibong EI, Damole IO. Elective hysterectomy: A clinicopathological review from Abha catchment area of Saudi Arabia. West Afr J Med 2005; 24:31-5.
18. Shergill SK, Shergill HK, Gupta M, Kaur S. Clinicopathological study of hysterectomies. J Indian Med Assoc. 2002; 100(4):238-9,
19. Gordon P. Flake, Janet Andersen, Darlene Dixon. Etiology and Pathogenesis of Uterine Leiomyomas: A Review. Environmental Health Perspectives June 2003; 111(8): 1037-1054.
20. H. Sheikh, K S Khan. Adenomyosis in Pakistani women: four year experience at the Aga Khan University Medical Centre, Karachi. J Clin Pathol. 1990 October; 43(10): 817–819.