



CLINICOPATHOLOGICAL ANALYSIS OF HYSTERECTOMIES IN A TERTIARY CARE HOSPITAL

Basanta Manjari Hota*

Senior Resident in Obstetrics & Gynecology Department of Obstetrics & Gynecology Mamata Medical College Khammam – 507002 Telangana *Corresponding Author

B Kavitha

Professor in Obstetrics & Gynecology Department of Obstetrics & Gynecology Mamata Medical College Khammam – 507002 Telangana

ABSTRACT

Introduction: Hysterectomy is the commonest major gynecological surgery in all over the world. It is usually an elective procedure. Even with present advancement in medical science the surgery is not risk free. Therefore this terminal procedure is decided only when absolutely indicated. Indications of this procedure show the disease prevalence in the institution and indirectly in the region.

Aims: The aim of this study was to find out the different clinical indications for hysterectomy and to correlate the clinical diagnosis with histopathological diagnosis.

Materials and methods: 232 cases undergoing hysterectomy for clinically benign conditions over a period of 2 years in a tertiary care centre catering mainly for rural Telangana were studied. Detail clinical data, investigations, indication for hysterectomy, type of surgery and histopathology report were compiled and analysed by frequency tables and compared with other similar studies.

Results: Majority of cases belonged to 5th decade of life (52.16%). Abnormal uterine bleeding was the commonest presentation (59.48%). Commonest indication for hysterectomy was fibroid uterus (39.22%). Total abdominal hysterectomy was the major route of surgery. Histopathology report showed Leiomyoma as the commonest pathology (40.08%) and histopathology report correlated with clinical indication up to 97.85%. In spite of exclusion of malignant cases, 4 cases (1.72%) were confirmed to be malignant histopathologically.

Conclusion: Abnormal uterine bleeding is the commonest clinical presentation and fibroid uterus is the commonest indication of hysterectomy. All specimens after hysterectomy must be subjected to histopathology examination to confirm the pathological diagnosis and to rule out malignancy.

KEYWORDS : Hysterectomy, uterine bleeding, leiomyoma, uterine malignancy.

INTRODUCTION

Hysterectomy, the commonest major gynecological surgery^[1] in pre and postmenopausal women all over the world is the surgical removal of the uterus. It is the second most common major surgery in women after caesarean section.^[2] It is mainly an elective surgical procedure, though there may be emergency surgery both in gynecology and obstetrics. Common gynaecological indications are fibroid uterus, dysfunctional uterine bleeding (DUB), pelvic inflammatory disease (PID), prolapse uterus, adenomyosis, endometriosis, endometrial or cervical epithelial pathology, ovarian pathology and malignancies.^[3] Uterine perforation during dilatation and curettage and other trauma may need emergency hysterectomy. Depending on the approach to the procedure, it can be abdominal or vaginal. Vaginal hysterectomy (VH) may be in prolapsed uterus or in non-descent uterus and is known as non-descent vaginal hysterectomy (NDVH). Abdominal hysterectomy may be by open or laparoscopy and laparoscopic hysterectomy may be total laparoscopic hysterectomy (TLH) or laparoscope assisted vaginal hysterectomy (LAVH). Abdominal procedure may be total abdominal hysterectomy (TAH) with or without salpingo-oophorectomy, or subtotal abdominal hysterectomy. NDVH is done in DUB cases as pelvic pathology needing surgery is excluded. Cases needing both perineal procedure and doubtful or confirmed pelvic pathology may be done well by LAVH. Pathology and expertise of the gynaecologist is important in deciding the approach to the procedure. Clinical presentations vary in different pelvic pathology and investigation confirms the provisional diagnosis. But histopathology confirms the final diagnosis and further management is based on it. Sometimes multiple pathological conditions may be superimposed either in uterus or in other pelvic organs. The aim of this study was to find out the different clinical indications for hysterectomy in the hospital, to correlate the clinical diagnosis with histopathological diagnosis and to compare the results with other such studies.

MATERIAL AND METHODS

This retrospective study was carried out in the department of Obstetrics and Gynecology, Mamata medical college and hospital, Khammam, Telangana. Details of all hysterectomies performed for benign gynecological conditions between January 2016 to December 2017 were taken. Patients' clinical data, ultrasound diagnosis, biopsy report, type of hysterectomy and histopathology reports were collected for statistical analysis. Undiagnosed malignant

cases operated here, when found to have malignancy on histopathology report were referred to oncology centres for further management. Clinically detected malignant cases and hysterectomy for obstetric indication were excluded from the study.

RESULTS

Total numbers of 232 hysterectomies were performed during the study period, out of which, 165 were TAH; 57 were VH; 02 were TLH and 08 were LAVH cases (table- 1). Out of 57 VH cases, 39 were for genital prolapse and 18 cases were NDVH. All hysterectomies were done as elective surgery. Age group of patients was between 27 to 70 years. Maximum number of cases (52.16%) was in age group of 40 – 49 years (table 2). All cases were parous.

Table - 1: Type of hysterectomy

S. No.	Type of Surgery	No. of cases (n=232)	Percentages of cases %
1	TAH	165	71.12
2	VH	57	24.57
3	LAVH	08	3.45
4	TLH	02	0.86

Table - 2: Age distribution of cases

S. No.	Age group In years	No. of cases (n=232)	Percentage of cases %
1	<30	02	0.86
2	30 - 39	52	22.41
3	40 - 49	121	52.16
4	50 - 59	29	12.50
	>= 60	28	12.07

Symptomatically 138(59.48%) cases had abnormal uterine bleeding (AUB) with or without pain lower abdomen; 55(23.71%) cases had pain lower abdomen with or without white discharge per vagina and 39(16.81%) cases complained of mass descending per vagina with or without associated pain or discharge (table-3). Indications of hysterectomy were leiomyoma 91(39.22%), chronic PID 27(11.64%), DUB 20(8.62%), ovarian cyst 18(7.76%), genital prolapse 39(16.81%), adenomyosis 5(2.16%), chronic cervicitis 25(10.78%), cervical dysplasia 6 (2.59%) and endometrial hyperplasia with atypia 4 (1.72%) (table-4).

Table – 3 clinical presentations

S. NO.	Clinical presentation	No. of cases (n = 232)	Percentage (%)
1	AUB +/- pain abdomen	138	59.48
2	Genital prolapse	39	16.81
3	Pain abdomen +/- White discharge per vagina	55	23.71

Table - 4: Indication for hysterectomy

S. No	Indication	No. of cases (n = 232)	Percentage (%)
1	Fibroid	91	39.22
2	Prolapse	39	16.81
3	PID	27	11.64
4	Adenomyosis	05	02.16
4	DUB	20	8.62
5	Ovarian Cyst	18	7.76
6	Chronic cervicitis	25	10.78
7	Cervical dysplasia	06	02.59
8	Endometrial hyperplasia with atypia	04	01.72

Histopathology study showed leiomyoma in 93 (40.08%), adenomyosis in 7(3.02%), benign endometrial pathology in 8(3.45%), benign cervical pathology in 40(17.24%), benign ovarian pathology in 15(6.47%), PID in 30(12.93%) and malignancy in 4(1.72%) cases. 35(15.09%) cases of histopathology reports did not show any abnormality. Many of the specimens showed multiple abnormal histopathological findings and in such cases the significant one was taken for statistical analysis to avoid repetition. The detail findings in histopathological study along with have been depicted in tables - 5, 6, 7.

Table - 5: Histopathology report

S.No.	HPE	No. of cases (n = 232)	Percentage (%)
1	NAD	35	
2	Leiomyoma	93	40.09
3	PID	30	12.93
4	Adenomyosis	07	03.02
5	Benign Cervical Pathology	40	17.24
6	Benign Endometrial Pathology	08	03.45
7	Benign Ovarian cyst	15	06.47
8	Carcinoma	04	01.72

Table-6 Distribution of cervical pathology

S. No	Cervical Pathology	No. of cases (n = 232)	Percentage (%)
1	LSIL*	02	0.86
2	HSIL†	04	1.72
3	Carcinoma	02	0.86
4	Cervicitis	34	14.66

* Low grade Squamous Intra epithelial Lesion
 † High grade Squamous Intra epithelial Lesion

Table - 09: comparison of present study with other studies

S. No	Study	No. of cases	Major Age Group (years)	Commonest Indication	Commonest Surgery	Commonest HPE report	Remark Inclusion of cases
1	Present Study	232	40 – 49 (53.44 %)	Fibroid uterus (39.22%)	TAH (71.12%)	Leiomyoma (40.09%)	Benign
2	V Aruna ⁸	200	40-49 (46%)	Fibroid uterus (30.5%)	TAH (56.0 %)	Leiomyoma (32.0 %)	All cases
3	G Vandana ⁹	318	40 – 49 (41.8%)	Fibroid Uterus (39.3%)	TAH (72.9%)	Leiomyoma (41.0 %)	All cases
4	Gupta G ¹⁰	500	40 – 49 (51.40%)	Genital prolapse (40.00%)	TAH (96.00%)	Leiomyoma (35.0 %)	All cases
7	TM Karthikeyan ¹¹	90	Mean age 44.5	Fibroid (41.0%)	-	Leiomyoma (37%)	All cases
5	Yadav DP ¹²	105	41 – 50 (52.38%)	Fibroid Uterus (48.57%)	TAH (100%) (Inclusion criteria)	Leiomyoma (50.48%)	All cases
6	Fatehpuriya DS ¹³	379	41 - 50	Fibroid Uterus (51.90%)	TAH (64.60%)	Leiomyoma (58.8%)	Benign

Table – 7 Distribution of Endometrial Pathology

S. No	Endometrial pathology	No of cases (n = 232)	Percentages (%)
1	Hyperplasia without Atypia	5	2.16
2	Hyperplasia With Atypia	3	1.29
3	Carcinoma	1	0.43

The Clinicopathological study showed 100% correlation for cervical dysplasia, whereas the same was 97.85% for leiomyoma. The details of Clinicopathological correlation are depicted in table-8.

Table - 8: Clinicopathological correlation

S.No.	Indication	Cases n=232	HPE	Clinicopathological Correlation (%)
1	Leiomyoma	91	93	97.85
2	PID	27	30	90.00
3	Adenomyosis	05	07	71.42
4	Ovarian cyst	18	15	83.33
5	Chronic cervicitis	25	34	73.53
6	Cervical dysplasia	06	06	100

DISCUSSION

Hysterectomy is a major gynecological surgery with many expected operative, postoperative and anaesthesia complications which affect morbidity, mortality and economic burden to the family. So decision for the surgery is taken when it is indicated. Rout and type of surgery is decided depending on the disease condition, the expertise of the surgeon and facilities available. The indication for surgery expresses the incidence of the pathology found in the institution. In the present study age group of patient was 27- 70 years (table-1) with maximum number of cases (52.16%) being in 40-49 years of age group. Only benign cases were taken after excluding malignancy by clinical and investigation reports. Majority of women were from rural background. Study by Jha R^[4] in a teaching hospital of Kathamandu found leiomyoma as the commonest (24.9%) indication for hysterectomy following genital prolapse and leiomyoma was the commonest pathology (27.1%) on histology report. Study by A Ebinesh et al.^[5] on 141 abdominal hysterectomy cases showed largest number of cases in age group of 41-50 years(56%); commonest clinical presentation(63%) was AUB and leiomyoma was the commonest(40.6%) pathology on histopathology report, though indication for hysterectomy was DUB in(58.8%) followed by fibroid. Shergill SK et al.^[6] in their study on 100 hysterectomy cases found the maximum cases in the age group of 31-50 years; the commonest clinical presentation was AUB (66%); major indication of hysterectomy was fibroid uterus (34%) and on histopathology examination, leiomyoma was found to be the commonest abnormality(31%). Rather GR et al.^[7] studied 698 cases among the age group of 20-70 years in J&K and found maximum number of women undergoing hysterectomy was in 41-50 years of age group.

Though leiomyoma was second (29.53%) to menorrhagia (35.43%) as clinical indication for hysterectomy, histopathology revealed leiomyoma in 30.80% and leiomyoma with adenomyosis in 8.02% cases in their study, concluding leiomyoma as the major pathology in hysterectomy specimens. The comparative findings of the present study with some other studies are depicted in table-09.

Almost all studies show the major age group undergoing hysterectomy belonging to 40-49 years of age, as is found in the present study. No obstetrical hysterectomy was included in any of the following studies. Abdominal route was major route of surgery. Fibroid was the commonest indication which was confirmed by histopathology. The study by Gupta G^[10] shows genital prolapse constituting 40% of the indication of total hysterectomies, but abdominal hysterectomy was done for 96% of cases and leiomyoma was the major histopathological finding(35%) indicating associated fibroid as the other pathology. Study by Karthikeyan^[17] in a tertiary care centre in rural Coimbatore did not mention the route of surgery. There was no case of genital prolapse and from the indications of surgery, it seems that all cases might have undergone abdominal hysterectomy. Their study did not have any exclusion criteria but all 90 cases of hysterectomy were included.

59.48% of patients in present study had presented with abnormal uterine bleeding with or without pain lower abdomen in comparison to 53.33% in the study by D P Yadav^[12] and 34.30% by D S Fathepuria.^[13]

Though the present study excluded genital malignancies by clinical and available investigations, 4 cases (1.7%) of malignancy were found on histopathology. This may be because of cases having high risk squamous intra epithelial lesion and endometrial hyperplasia with atypia being included in the study. One case with preoperative diagnosis of fibroid polyp was found to be myosarcoma on histopathology following hysterectomy. One case of fibroid uterus had endometrial carcinoma on histopathology of specimen after hysterectomy.

CONCLUSION

Major age of hysterectomy in the study was found to be 40 – 49 years. The most common presentation in patients in the institution was abnormal uterine bleeding. Leiomyoma was found to be the commonest indication for the surgery. Abdominal surgery was the major route for the procedure. Though malignant cases were excluded in the study 4 out of 232 cases (1.7%) were found to be malignant needing further management. So it was concluded from this study that in all cases of hysterectomy, the specimen must be subjected to histopathology examination to reach a definite diagnosis and to rule out malignancy.

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. Graves, E.J. National Centre for Health Statistics, National hospital discharge survey: annual summary, 1990. *Vital health stat (13).* 1992, No.112. DHHS publication PHS 92-1773.
3. Nousheen F, Iqbal J, Bhatti FA, Sheik S. Hysterectomy The patient perspective. *Ann Gynaecol* 2004;10:339-41.
4. Jha R, Pant AD, Jha A, Adhikari R C, Sayami G. Histopathological Analysis of Hysterectomy Specimens. *J Nepal Med Assoc.* 2006; 45(163):283-90.
5. A Ebinesh, MS Sharada, MC Krishna. *International Journal of Science and Research.* 2015; 4(6):1084-1089.
6. Shergill SK, Shergill HK, Gupta M, Kaur S. Clinicopathological study of hysterectomies. *J Indian Med Assoc.* 2002; 100 (4) 238-9.
7. Rather GR, Gupta Y, Bharadwaj S. Patterns of lesions in hysterectomy specimens; A Prospective study. *J.K.Science* 2013; 15(2):63-68.
8. V Aruna. *Int J Cur Res Rev.* 2015; 7(10):51-54.
9. G Vandana, C Prasanthi. *Indian Journal of Basic and Applied Medical Research.* 2016; 5(2): 8-15.
10. Gupta G, Kotasthane D, Kotasthane V. Hysterectomy: A Clinico-Pathological Correlation of 500 Cases. *The Internet Journal of Gynecology and Obstetrics.* 2009; 14(1):1-5.
11. T M Karthikeyan, N N Veena, C R Ajeeth Kumar, Thomas Eliz. *IOSR Journal of Dental and Medical Sciences.* 2015; 14(5), Ver. IV: 25-27.
12. Yadav DP, Yadav RI, Bhati Indra. *Int J Reprod Contracept Obstet Gynecol.* 2017; 6(3):1012-1015.
13. Fatehpuriya DS, Verma L, Sharma S. *Int J Reprod Contracept Obstet Gynecol.* 2017; 6(3):934-938.