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Original Research Article

A CLINICO-PATHOLOGICAL STUDY ON HYSTERECTOMY IN A TERTIARY CARE HOSPITAL

Dr. C. Venkata Harish¹, Dr. B. Bhanumathi², Dr. N. Kathya³, Dr. PM. Rekha Rao⁴, Dr. Dumpala Vijayalakshmi⁵, Dr. Shankar Reddy Dudala⁶

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Corresponding Author: Dr.PM.Rekha Rao, Assistant Professor, Dept of Gynaecology and Obstetrics, Government Medical College, Kadapa, A.P.

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Abstract:

Background: Uterus is a very vital reproductive organ and is subjected to many benign and malignant diseases. Hysterectomy is one of the most frequently performed procedures all over the world. Aim: Clinico pathological study on hysterectomy in a tertiary care hospital.

Materials and Methods: In this study, 150 cases of hysterectomy were analysed from April 2016 to August 2017 at RIMS, Kadapa.

Results: In histo pathological diagnosis leiomyoma was the most common pathology identified comprising of 43cases (28.6%). Secretory Phase was seen in 26 cases (17.3%). Adenomyosis was encountered in 21 cases (14%).

Keywords: Fibroid uterus, DUB, Hysterectomy, Leiomyoma, Uterine prolapse, Kadapa

Introduction

Hysterectomy is most common gynaecological operation in India and also in the world1. Charles Clay performed first subtotal hysterectomy in 1843 and first total hysterectomy in 1929 in England. 1,2 Hysterectomies are done for definitive treatment of multiple pathologies of female reproductive organs like fibroids, uterine prolapsed, abnormal

uterine bleeding, adenomyosis, endometriosis etc of female reproductive organs. 3,4

Recently, reports have identified hysterectomy as a key health care indicator used to measure and compare hospital performance. 5 Lately, hysterectomy rates are also decreasing due to better availability of alternative methods.⁶ But in spite of large number of potential alternatives to hysterectomy for benign diseases, hysterectomy rates have remained relatively stable because it is associated with higher rates of patient satisfaction than other methods. 7,8

Types of Hysterectomies include Abdominal hysterectomy (AH), Vaginal Hysterectomy (VH), Laparoscopic hysterectomy and Robotic hysterectomies. These procedures have undergone important changes recently. Abdominal hysterectomy is carried out in cases of gynaecological disorders like Bleeding (AUB), Abnormal Uterine Fibroids, endometriosis, and in malignancies. Vaginal hysterectomy which is considered to be less invasive than abdominal hysterectomy is usually indicated in gynaecological disorders for prolapsed uterus. But now vast worldwide literature has demonstrated its applicability in other common benign disorders with no uterovaginal descent like uterine leiomyoma,

¹Assistant Professor, Department of Pathology, Government Medical College, Kadapa, AP.

²Post Graduate, Department of Anatomy, Government Medical College, Kadapa, AP.

³Private Practioner, Gynaecologist, Produttur, AP.

⁴Assistant Professor, Dept of Gynaecology and Obstetrics, Government Medical College, Kadapa, A.P.

⁵Senior Resident, Dept of Gynaecology and Obstetrics, Government Medical College, Kadapa, A.P.

⁶Associate Professor in Community Professor, Government Medical College, Kadapa, A.P.

adenomyosis, abnormal uterine bleeding – a term referred to as Non Descent Vaginal Hysterectomy in non-prolapsed uterus: no scar hysterectomy. ⁹

There are very few studies performed where a correlation between histopathological examination of the uterus and the clinical profile of the patient undergoing hysterectomy has been attempted. The present study is undertaken to study trends in hysterectomy in a tertiary care hospital based on the indications of hysterectomy.

MATERIALS AND METHODS

Complete examination, history, indication, type of hysterectomy, per operative findings, per operative complications, post-operative events is taken from all the eligible patients.

Regarding her obstetric history, age of marriage, duration, mode of delivery so as to know whether they were conducted at home or hospital, conducted by trained or untrained dais, duration of second stage labour, post-natal period events, history of sterilisation, duration since last delivery were noted.

Menstrual history details like age of menarche, regularity of cycles, history of passage of clots and number of pads per day to roughly assess excessive flow, last menstrual periods details were observed.

Detailed general and systemic examination were noted. On abdominal examination any palpable mass, organomegaly, tenderness, ascites, position of umbilicus, any engorged veins and hernial sites were noted.

Local examination of external genitalia, tests for incontinence, per speculum examination findings, status of vagina and cervix, descent of uterus and any

discharge per vagina, position and mobility of uterus, forniceal status and recto vaginal examination were analysed in detail.

After the clinical diagnosis, pap smear, dilatation and curettage reports and the following investigations were studied in detail. Details of any medical pre anaesthetic check-up, preparation of patient for hysterectomy, preoperative antibiotics, operative notes showing the date of operation, indication, type of hysterectomy, per operative findings , per operative complications, post-operative events and histopathological reports, advice at discharge, follow up at OPD level were analysed.

Inclusion criteria: All cases who underwent hysterectomy in RIMS, Kadapa during the study period.

Exclusion criteria: 1.Those who do not give consent. 2. Caeserian Hysterectomy.

Case sheets of 150 women who have undergone Abdominal, vaginal or laparoscopic hysterectomy were analysed in detail for the following information.

Sample size: In this study, 150 cases of hysterectomy were analysed from April 2016 to August 2017 at RIMS, Kadapa. All cases which met the inclusion and exclusion criteria were selected for the study.

Institutional ethical clearance was taken for the study.

RESULTS:

150 cases of hysterectomy were analysed from April 2016 to August 2017 at RIMS, Kadapa.

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S. No.	Clinical Diagnosis	No.	Percentage
1.	Fibroid uterus	46	31%
2.	Prolapse	44	29.3%
3.	Adenomyosis	15	10%
4.	Endometrial causes	15	10%
5.	Endometrial polyp	4	2.6%
6.	DUB	11	7.3%
7.	PID	7	4.6%
8.	CIN	1	0.6%
9.	Ovarian cyst	4	2.6%
10.	Postmenopausal bleeding	3	2%
	Total	150	

Regarding the indications for hysterectomies, separate observations were made for abdominal, vaginal and laparoscopic approach. It is noted that maximum number of vaginal hysterectomies were done for prolapse uterus, maximum number of abdominal hysterectomies were done for fibroid uterus, laparoscopic approach was for fibroid uterus and DUB.

Table 2: Histopathology of Uterus

S.NO	HISTOPATHOLOGY	NO.	PERCENTAGE
1.	Leiomyoma	43	28.6%
2.	Adenomyosis	21	14%
3.	Endometrial Hyperplasia	9	6%
4.	Cystic Glandular Hyperplasia	11	7.3%
5.	Secretory Phase	26	17.3%
6.	Proliferative Phase	5	3.3%
7.	Atrophic Endometrium	5	3.3%
8.	Endometrial Polyp	2	0.13%
9.	Leiomyosarcoma	1	0.7%
10.	Nil Particular	27	18%

In histo pathological diagnosis leiomyoma was the most common pathology identified comprising of 43cases (28.6%). Secretory Phase was seen in 26 cases (17.3%). Adenomyosis was encountered in 21 cases (14%).

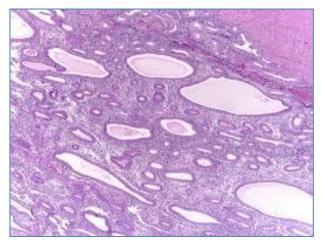


Figure 1: Simple Endometrial Hyperplasia without Atypia

Figure 2: Complex Hyperplasia without Atypia

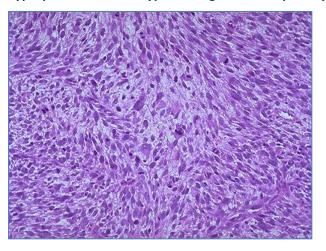


Figure 3: Histopathology-Leiomyosarcoma

Table 2: Histopathology of Cervix

S.NO	HISTOPATHOLOGY	No.	Percentage
1.	Nonspecific cervicitis	100	66%
2.	Koilocytosis	6	4%
3.	Fibroid polyp	2	1.3%
4	Endocervical polyp	5	3.3%
5.	Endocervical polyp with cervicitis	3	2%
6.	Adenocarcinoma of cervix	1	0.6%
7.	Nil particular	33	22.6%
	Total	150	

Cervicitis was observed in 100 (66%) cases, fibroid polyp in 2 (1.3%) cases and unremarkable changes in 33 (22.6%) cases.

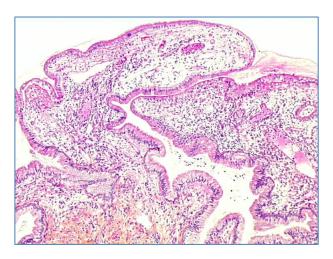


Figure 4: Chronic Cervicitis

Figure 5: Adenocarcinoma of Cervix

Table 3: Histopathology of Ovaries

S.No	HISTOPATHOLOGY	NO.	PERCENTAGE
1.	Corpus albicans	28	37.3%
2.	Functional cysts	5	6.6%
3.	Cortical cysts	1	1.3%
4.	Serous cystadenoma	1	1.3%
5.	Nil particular	40	53.3%
	TOTAL	75	

75 cases had ovaries removed. 40(53.3%) cases had no pathology which constituted the maximum amount.

Table 4: Comparison of Various Indications with Surgical approach

S.no	Diagnosis	Abdominal	NDVH(n=10)	Laparoscopic
		hysterectomy(n=55)		hysterectomy(n=41)
1	Fibroid uterus	30(54.5%)	5(50%)	11(26.82%)
2	DUB	1(1.8%)	2(20%)	8(19.51%)
3	PID	1(1.8%)	-	6(14.6%)
4	Adenomyosis	8(14.5%)	1(10%)	6(14.6%)
5	Endometrial causes	4(7.27%)	2(20%)	9(21.9%)
6	Polyp	3(5.45%)	-	1(2.43%)
	Post menopausal bleeding	3(5.45%)	-	-
7	Ovarian cyst	3(5.45%)	-	-
8.	CIN	1(1.8%)	-	-
9.	Prolapse	-	44(VH+PFR)	-

Fibroid uterus (54.5%) is the most common indication for hysterectomy in abdominal hysterectomy patients. Fibroid uterus (50%) is the most common indication for hysterectomy NDVH patients. Fibroid uterus (26.8%) is the most common indication for hysterectomy in laproscopic hysterectomy patients.

DISCUSSION

This study was a prospective study conducted at Rajiv Gandhi Institute of Medical Sciences and research, Kadapa, YSR District. 150 cases of hysterectomy specimens were subjected to histopathology. Fibroid uterus in the myometrium, chronic cervicitis in the cervix and functional cysts in the ovaries were the commonest histopathology noted. Adenomyosis was the most missed pathology preoperatively.

Only few studies have compared pre-operative clinical diagnosis with the histopathology of hysterectomy specimens. We have found that majority of pre-operative diagnosis of our cases were confirmed on histopathology.

Lee found that out of 1283 women studied, 80% of the pre-operative diagnosis were confirmed in the potentially confirmable group. 10 Miller studied 246 hysterectomy specimens and found that clinical diagnosis were confirmed in 50% cases. 11

In the present study, Leiomyoma 43(28.6%) was noticed to be the most common histopathological finding and most common indication for

hysterectomy. 46 cases were diagnosed as fibroid uterus preoperatively out of which only 43 cases showed leiomyoma on histopathological examination, the other cases, one case had Adenomyosis, one case of cystic glandular hyperplasia and one case of endometriosis each.

Results of the study were similar and in comparison, with other studies.

Archana Bhosle et al in 2010 did a retrospective study of 112 perimenopausal women with abnormal uterine bleeding for a 6 months period. ¹² Fibroid uterus, DUB, and adenomyosis were the principal causes of abnormal uterine bleeding in this study.

Perveen and Tayyab 2008 reviewed 54 elective abdominal hysterectomies and revealed that leiomyoma is the commonest (59. 2%) pathological lesion.¹³

Yogesh neena et al, in 2013 reported that the final histopathology of hysterectomy specimens exhibited leiomyoma as the most common lesion in 24.6% cases, adenomyosis in 12.15% cases, endometrial hyperplasia in 9% cases, fibroid combined with adenomyosis in 4.8% and malignancy in 0.34% cases. 14

Nisha mohammed et al in 2014, in their study reported leiomyoma (43.7%) as the common histopathological finding followed by adenomyosis (9.1%).¹⁵

Sr. No.	Study design	Percentage
1	Perveen and Tayyab ¹³	59.2%
2	Archana bhonsele et al ¹²	54%
3	Yogesh neena et al ¹⁴	24.6%
4	Nisha mohammed et al ¹⁵	43.7%
5	Present study	28.6%

Histopathology of 21 specimens showed adenomyosis out of which only 15(71%) cases were diagnosed preoperatively which indicates that adenomyosis is the most common diagnosis that is missed preoperatively. One case of leiomyosarcoma was detected on histopathology which was undiagnosed preoperatively. Non specific cervicitis(66%) is the most common histopathological finding of cervix in the present study which were similar to studies by Nisha mohammed et al, 15 Yogesh neena et al.14

Adenocarcinoma of ectocervix was diagnosed in one case on histopathology which was unnoticed preoperatively. 75 cases had ovaries removed, 41 cases had no significant pathology noticed, corpus albicans was noticed in 37.3%,functional cysts in 6.6% cases and one (1.3%) had serous cystadenoma on histopathological examination.

Conclusion:

In histo pathological diagnosis leiomyoma was the most common pathology identified comprising of 43cases (28.6%). Secretory Phase was seen in 26 cases (17.3%). Adenomyosis was encountered in 21 cases (14%).

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