

Clinical and Pathological Study of Hysterectomies – A Review of 271 Cases

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Abstract

Aim: The aim of the study was to assess the range of pathological lesions in the hysterectomy specimens and correlation of the preoperative diagnosis with the histopathological diagnosis.

Materials & Methods: This was a retrospective study which included all the patients who underwent hysterectomy for the non oncological gynecological causes in Fathima Institute of Medical Sciences, Kadapa, Andhra Pradesh over a span of 12 months, from January 2017 to December 2018.

Results: A total of 271 hysterectomies were done for the non-oncological causes in the department of obstetrics and gynecology, Fathima Institute of Medical Sciences, during the study period. Among these, 161 (59%) were done by the abdominal route and 110 (41%) were done by vaginal route. Maximum number of hysterectomies were done in 30-39 yrs age group whereas vaginal hysterectomy was done in 40-49 yrs age group. Uterovaginal prolapse (40.6%) was the most common preoperative indication for vaginal hysterectomy, while dysfunctional uterine bleeding (DUB, 39.4%) was the commonest indication for the abdominal hysterectomy. Other common indications were Fibroid uterus in the myometrium, chronic cervicitis in the cervix and functional cysts in the ovaries. Most

common histopathological findings were Endometrial hyperplasia in 156(57.5%), Fibroids in 57(21.03%), Secretory type endometrium in 34 (12.5%), Adenomyosis in 21(7.7%), Cystic glandular hyperplasia in 22(8.0%), Chronic cervicitis in 26 (9.5%) and Follicular cysts of the ovaries 18(6.6%).

Conclusions: Clinical findings were correlated with histopathological findings, in most of the cases there was justification of hysterectomy, was proved when the HPE report is compatible with the preoperative diagnosis except in few instances but these patients had genuine symptomatology justifying the performance of hysterectomies in these cases also.

Keywords: Abdominal Hysterectomy, Vaginal Hysterectomy, Histopathology.

Introduction

Hysterectomy is a commonly performed gynaecological procedure. It is the second most common operation performed on women after Caesarean Section worldwide¹. It is considered as the definitive treatment for various benign pelvic pathologies like leiomyoma, dysfunctional uterine bleeding (DUB), chronic pelvic pain, endometriosis, adenomyosis, uterovaginal prolapse and in some cases of genital tract malignancies². With better recognition and treatment of complicated medical

diseases, with proper use of blood transfusions and antibiotics and with improvements in anesthetic techniques, a hysterectomy can be done fairly safely by a skillfull gynaecologic surgeon. Currently in modern practice of gynecology, appropriate knowledge of reproductive organ function and disease, use of special and more accurate diagnostic techniques and effective non surgical methods of surgery, a more correct choice of treatment with the use of surgical therapy only when indicated is done. The knowledge that is needed for proper indications of hysterectomy includes primarily a thorough understanding of the physiology and pathology of female reproductive organs, the clinical manifestations of pelvic disease and the normal and abnormal psychosexual development. It is with this basic knowledge a patient should be offered surgical therapy. The ease with which average hysterectomy may be done has proven both a blessing and a curse to woman kind. There is no doubt that hysterectomy done with proper indications may restore woman to health and even save her life, however in practice of gynecology one has ample opportunity to have hysterectomies done without proper indications. As in any field of surgery and especially in gynecology preoperative diagnosis made clinically which is confirmed at surgery has to be correlated with the histopathological diagnosis. Pathological confirmation of the clinical diagnosis not only gives us a clear picture of the indications for further hysterectomies but also increases our clinical acumen and diagnosis.

Materials and methods: The present study was carried out during a period of one year from 2017 to December 2018 at Fathima Institute of Medical Sciences in total of 271 cases.

Inclusion criteria: Abdominal Hysterectomies, Vaginal Hysterectomies.

Exclusion Criteria: hysterectomies done for uterine malignancies and obstetric emergencies.

Detailed clinical history was taken that included present complaint, past and present menstrual history, relavant obstetric history, family and personal history. Thorough general and physical examination was carried out to exclude any other medical or surgical disorders. Meticulous abdominal and per vaginal examination was done in detail to make a clinical diagnosis. Following provisional diagnosis routine investigations were performed to assess patient fitness for surgery. Special investigations like dilatation and curettage, cervical biopsy, laproscopy, ultrasonography and intravenous pyelography were done whenever necessary. After making a clear clinical diagnosis and investigations judgement was made regarding the need for hysterectomy and type whether abdominal or vaginal. The decision to operate on patient was done after considering age, parity, desire for further child bearing, desire to continue having menstruation, risks of retaining uterus, willingness for follow up after conservative management and psychological reaction of patient and her family to hysterectomy. Proper preoperative care was given in the form of proper nutrition, hemantiniacs, vitamins and blood transfusions if necessary. During surgery confirmation of clinical diagnosis by thorough inspection of uterus, fallopian tubes, ovaries and other organs was done and gross macroscopic appearance of the lesion was noted followed by appropriate surgery. After removal of uterus adnexal organs were examined in detail and documented. All the specimens were sent for histopathological examination. The clinical and pathological diagnoses were correlated and a final diagnosis was given.

Results: Among 271 cases, Abdominal hysterectomies were 161(59%) and Vaginal hysterectomies were 110

(41%) out of which Vaginal hysterectomies for prolapse only were 103 (38.4%).

Age group: Maximum number of Abdominal hysterectomies were done in 30-39 yrs 71(44.1%) whereas Vaginal hysterectomies were performed in 40-49 yrs age group 35 (31.8%) indicating that Vaginal hysterectomies for uterine prolapsed which occurs in older age group (Figure 1).

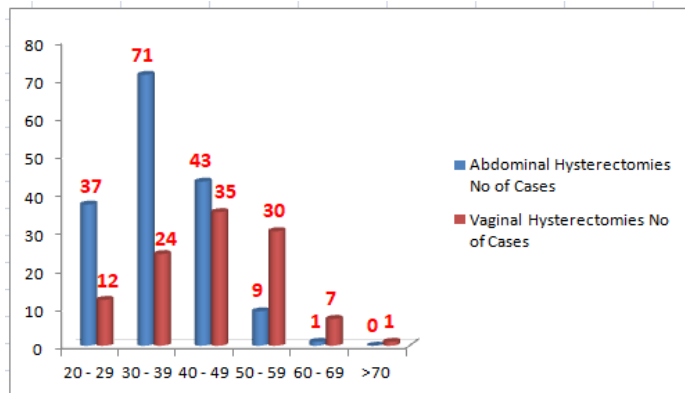


Fig 1: Age Distribution of Hysterectomies

Parity: Maximum number of Abdominal hysterectomies were done in parity 3 group (25.5%) and parity 2 (24.8%) whereas Vaginal hysterectomies were maximally done in parity 4 (21.8%) and parity 3 (20.9%) respectively. This is because most common indication for hysterectomy was DUB and prolapsed uterus in these age groups.

Presenting symptoms: Most common symptoms for which patient attended gynecology outpatient department in our hospital were menstrual disturbances with DUB and fibroid uterus 107 (39.4%), mass per vaginum was other major complaint 110 (40.6%) who were found to have varying degree of uterine prolapsed and fibroid polyps, followed by abnormal vaginal discharge 85(31.4%) which was because of prolapsed uterus and chronic cervicitis.72 patients (26.6%) presented with chronic abdominal pain and 64 patients (23.6%) presented with chronic backache which was dull aching and diffuse which exaggerated at the time of menstruation. Other complaints were

abdominal swelling which was present over a period of many years diagnosed to have uterine fibroids or ovarian tumors. Some presented with pelvic inflammatory disease that had tubo ovarian masses or chronic pelvic cellulitis (Table 1).

Table 1: Indications for Hysterectomy

Indications	No of Cases	Percentage
Dysfunctional Uterine Bleeding	55	20.3
Fibroid uterus	52	19.2
Chronic cervicitis	32	11.8
Pelvic inflammatory disease	12	4.4
Ovarian tumors	11	4.1
Carcinoma in situ	1	0.4
Broad ligament tumors	2	0.7
Prolapsed uterus	105	38.7
Previous molar pregnancy	1	0.4
Total	271	100

Surgery: Out of 271 patients 78 (28.7%) patients were treated by Total Abdominal hysterectomy without removal of adnexa, 56 (20.6%) were treated with Total Abdominal hysterectomy with unilateral Salphingoophorectomy and bilateral Salphingoophorectomy in 14(5.1%) and Total Abdominal hysterectomy with Ovariectomy with or without Salphingectomy in 13(4.7%). Vaginal hysterectomy with pelvic floor repair was carried out in 103(38.0%) patients and Haeney’s Vaginal hysterectomy was done in 7 (2.5%) of the cases (Figure 2).

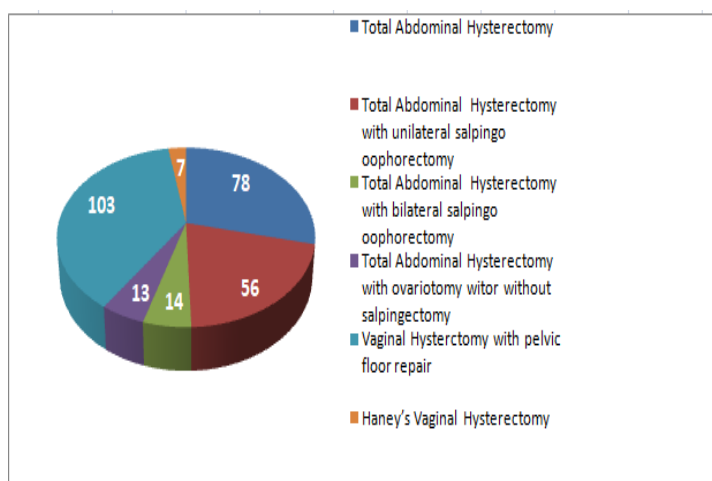


Fig 2: Distribution of Types of Hysterectomies

Histopathology findings: Out of 55 cases of DUB proliferative type of endometrium was seen in 43 patients, 5 patients showed secretory phases and 14 showed chronic glandular hyperplasia, 12 patients showed chronic polypoidal endocervicitis, Adenomyosis was found in 4, small fibroids were found in 4 patients whereas myometrium was unremarkable in 37 patients. Out of 52 cases of fibroid uterus, proliferative type of endometrium was found in 42 patients, 5 cases confirmed to have Adenomyosis, cystic ovaries were found in 11 patients. Out of 12 cases of pelvic inflammatory disease 5 cases had tuboovarian masses, 4 cases had chronic pelvic cellulitis and 3 cases had chronic salpingitis. One patient had tuberculosis and one patient had serous cyst adenoma of the ovary. Out of 11 cases of ovarian tumors 9 cases were serous cyst adenomas and 2 cases were mucinous cyst adenomas of the ovary. Out of 105 cases of prolapsed uterus, 46 patients showed proliferative endometrium, 19 patients had secretory endothelium, 4 patients had cystoglandular hyperplasia and 2 patients showed chronic endometritis. 5 cases of senile cystic atrophy, 7 cases of coincident Adenomyosis and 6 cases of small fibroids was noted. To summarise most common histopathological findings were Endometrial hyperplasia in

156(57.5%), Fibroids in 57(21.03%), Secretory type endometrium in 34(12.5%), Adenomyosis in 21(7.7%), Cystic glandular hyperplasia in 22(8.0%), Chronic cervicitis in 26 (9.5%) and Follicular cysts of the ovaries in 18(6.6%) (Table 2).

Table 2: Pattern of Histopathological Diagnosis for Hysterectomies

Histopathological Diagnosis	No. of Cases	Percentage
Endometrial hyperplasia	156	57.56
Cystic glandular hyperplasia	22	8.12
Fibroids	57	21.03
Adenomyosis	21	7.75
Atrophic endometrium	5	1.85
Chronic cervicitis	26	9.59
Follicular cysts of ovaries	18	6.64
Corpus luteal cyst	7	2.58
Serous cystadenoma of ovary	11	4.06
Mucous cystadenoma	2	0.74
Chronic salpingitis	7	2.58
T.B Salpingitis	1	0.37

Discussion

Hysterectomy is a major surgery which has its own physical, economic, emotional, sexual and medical significance to the women. Indications for hysterectomy vary from benign condition to malignancy of genital tract. Hysterectomy can be done either through Abominal route or through Vaginal route, Laproscopic approach is also being used progressively in recent times. Approach depends on surgeon's preference, indications for surgery, nature of disease and patient's characteristics.

Histopathological analysis and review is mandatory to evaluate the appropriateness of the hysterectomy.

The most common surgical approach in the present study was Abdominal hysterectomy 59%, followed by Vaginal hysterectomy 41%. Total Abdominal Hysterectomy was found to be the commonest type of hysterectomy performed in 28% of the cases similar studies were reported by others^{3,4,5,6}. The commonest estimated age range in our study was 30 – 39 yrs for Abdominal hysterectomy and 40 – 49 yrs for vaginal hysterectomy which is similar to that reported in previous studies^{7,8,9}.

Most common clinical indication in our study was menorrhagia, followed by fibroid uterus, Dysfunctional Uterine Bleeding ranked first in our indications many studies have reported menorrhagia as the most common clinical indication for hysterectomy^{10,11,12}. Chronic cervicitis is a common condition in adult females atleast at microscopic level. Chronic cervicitis was commonest finding in our study, same results were obtained by Ghousia Rahim Rather etal¹³ and Talukder etal¹⁴. Adenomyosis is rarely diagnosed preoperatively and is still largely under diagnosed as it has no specific symptoms of its own^{8,15} in our study 10 cases of fibroid uterus were pathologically confirmed to have Adenomyosis.

Only few studies have compared pre-operative clinical diagnosis with histopathology of hysterectomy specimens. We have found that our pre-operative diagnosis were confirmed on histopathology like uterovaginal prolapse, Pelvic inflammatory disease, uterine polyps, malignant cervical polyp have 100% diagnosis confirmed on histopathology and same was reported by G Gupta etal¹¹. Lee NC found that out of 1283 women studied, 80% of the pre-operative diagnosis was confirmed in the potentially confirmable group¹⁶. Although hysterectomy is

quite a safe procedure now a days, still it should only be performed when a proper indication is justified. Histopathological examination of surgical specimens carries ethical, legal, diagnostic and therapeutic significance so every hysterectomy specimen should be subjected to histopathological examination.

Conclusion

A variety of conditions in gynaecological practice require removal of uterus that may show no gross or microscopic pathology. This study signifies the fact that the histopathological analysis of the hysterectomy specimens should be a mandatory procedure, even if the gross appearance is normal, as few lesions are found to be the pure incidental finding. It also provides a correlation with the clinical and preoperative diagnosis and leads to appropriate management in the postoperative period. Justification of the hysterectomy is also proved when the histopathological diagnosis corresponds with the pre-operative diagnosis.

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