

A RETROSPECTIVE REVIEW OF ABDOMINAL HYSTERECTOMY IN A TEACHING HOSPITAL

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ABSTRACT

INTRODUCTION: Hysterectomy is the most commonly performed gynaecological surgery throughout the world. It may be life saving procedure in acute uterine hemorrhage; whereas improves the quality of life in a patient with certain uterine pathology such as fibroids, endometriosis and uterine prolapse. The objective of this study is to review the indications and complications of abdominal hysterectomy as well as to assess the correlation of preoperative clinical and ultrasonographic diagnosis with histopathology of hysterectomy specimens.

MATERIAL AND METHODS: A retrospective review of medical records of patients who underwent abdominal hysterectomy between January 2010 and July 2012 in the College of Medical Sciences Teaching Hospital, Nepal was done. Various demographic and pertinent clinical informations were retrieved. Clinical presentations, indications and complications of the hysterectomy as well as the correlation between the clinical diagnosis, ultrasound findings and histopathological diagnosis of the hysterectomy specimen was studied.

RESULTS: Between January 2010 and July 2012 a total of 139 patients had undergone abdominal hysterectomy for various indications. The mean age at the time of hysterectomy was 45.5 years. Abnormal vaginal bleeding and lower abdominal pain were the main presenting complaints. The median duration of symptoms was 12 months. Fourty three (40%) had hysterectomy alone and 96 (60%) had hysterectomy with salpingo oophorectomy. The most common clinical indication for hysterectomy was fibroid uterus (40.3%) followed by benign ovarian tumor (18.7%) and dysfunctional uterine bleeding (17.3%). There were no major postoperative complications. The correlation between clinical diagnosis and histopathology was significant at 0.01 level using Pearson correlations.

CONCLUSION: Uterine fibroids and benign ovarian tumors are the common indications for abdominal hysterectomy. Postoperative complications are minimal and most of the time the clinical diagnosis correlates with the postoperative histopathological diagnosis.

KEY WORDS: Abdominal; Complications; Correlations; Hysterectomy; Indications; Histopathology

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INTRODUCTION

Hysterectomy is one of the common surgical procedures in peri and postmenopausal women. Fourty percent of women in the world will have undergone hysterectomy by the age of 64years.¹ Hysterectomy remains the only treatment option in several gynaecologic and obstetric disorders like acute uterine hemorrhage.²⁻⁴ It also improves the quality of life of a woman with certain uterine pathologies such as fibroids, endometriosis and uterine prolapse.⁵ However, the predictive advantages must be weighed against the possible risks of surgery and other alternative treatment options available.⁶ Abdominal hysterectomy can be either total or subtotal, later thought to provide better sexual function and less damage to neuroanatomical structures. However, a cochrane review failed to confirm that the subtotal hysterectomy offers improved outcomes of sexual, urinary or bowel function when compared with total abdominal hysterectomy.⁷ In this study we aim to review our experience of abdominal hysterectomy including indications, perioperative events as well as comparison of the preoperative clinical diagnosis with histopathology of hysterectomy specimens.

MATERIAL AND METHODS

A retrospective review of medical records of patients who underwent abdominal hysterectomy between January 2010 and July 2012 in College of Medical Sciences Teaching Hospital, Nepal was done. Various demographic and pertinent clinical information including age, parity, chief clinical symptom, last menstrual period, duration of symptoms, the preoperative clinical diagnosis, ultrasound diagnosis, and the final histopathology results of the hysterectomy specimens were retrieved. Additional information on indications and types of hysterectomy, as well as the correlation between the clinical, ultrasound diagnosis and final histopathological diagnosis was estimated. Statistical analysis was done by using Statistical Package for the Social Sciences Software (SPSS) Program for windows[®] version 18. Statistical significance was accepted at the five percent level.

RESULTS

Between January 2010 and July 2012 a total of 139 patients had undergone abdominal hysterectomy for various indications in our hospital. The mean age at the time of hysterectomy was 45.5 years (Table 1). The majority of hysterectomies were performed for women in the age group of 41-50 years (46.04%), while 5% were above 60 years of age and only 33% were less than 40. Majority of the lady were multiparous. Abnormal vaginal bleeding and lower abdominal

pain were the main presenting complaints (Table 1).

Table 1: Demographic variables

Variable(s)	Values
Total number of patients	139
Age in years*	45.5 ±9.0 (23-78)
Clinical presentations	
Bleeding per vagina, N (%)	90 (64.7)
Lower abdominal pain, N (%)	87 (62.6)
Duration of symptoms, Months**	12.0 ±28.6 (1week –10 years)
Parity	
Multipara, N (%)	131 (94.2)
Para one, N (%)	4 (2.9)
Nulligravida, N (%)	4 (2.9)

* Mean± SD (range)

** Median± SD (range)

Menorrhagia was the most common abnormal bleeding pattern (39%), followed by metorrhagia (22%), menometorrhagia (10%), postmenopausal bleeding (3.6%) and postcoital bleeding (1.4%). Seventeen percent of the patient had palpable abdominal mass in the initial presentation.

The median duration of symptom was 12 months with range from one week to 10 years. The most common clinical indication for hysterectomy was fibroid uterus (40.3%) followed by benign ovarian tumor (18.7%) and dysfunctional uterine bleeding (DUB) (17.3%) (Table 2).

Table 2: Indications and preoperative diagnosis of hysterectomy

Indications	No. of Patients (Percentage)
Total number of patients	139
Fibroids	56 (40.3)
Benign ovarian tumor	26 (18.7)
Dysfunctional Uterine Bleeding (DUB)	24 (17.3)
Pelvic Inflammatory Disease (PID)	10 (7.2)
Adenomyosis	8 (5.8)
Endometrial carcinoma	4 (2.9)
Malignant ovarian tumor	4 (2.9)
Cervical Intraepithelial Neoplasia (CIN)	2 (1.4)
Prolapse	1 (0.7)
Molar Pregnancy	1 (0.7)
Pyometra	1(0.7)
Post Partum Hemorrhage (PPH)	1(0.7)
Ruptured uterus	1(0.7)

Out of 139 cases, eight were operated for preoperative diagnosis of malignancy which included four endometrial carcinoma and four malignant ovarian tumor. One patient had emergency hysterectomy for postpartum hemorrhage and one for ruptured uterus. Fourty Three (40%) had hysterectomy alone and 96 (60%) had hysterectomy with salpingo oophorectomy. One patient had undergone subtotal hysterectomy for severe postpartum hemorrhage; whereas

rest of the patients were treated with total abdominal hysterectomy. The most common ultrasonography diagnosis was fibroid uterus (40%) followed by normal uterus (34%), ovarian cyst (17%), adenomyosis (3%), malignant ovarian tumor (2%) and others. Out of the total 139 cases of abdominal hysterectomies, the most common histopathological finding was fibroid uterus (41.7%). The other pathologies were adenomyosis (17.3%), benign ovarian tumor (15.1%), chronic cervicitis (10.8%) and endometrial hyperplasia without atypia (4.3%). Two cases (1.4%) had normal histopathological findings and 6 (4.1%) were malignant pathologies. These malignancies included four cases of ovarian cancer and two cases of endometrial cancer. Some of the specimens show more than one lesions in the body of uterus, of which coexistence of adenomyosis and leiomyoma was the most common.

Table 3: Histopathological Diagnosis

Histopathology	No. of cases (Percentage)
Fibroid	58 (41.7)
Adenomyosis	24 (17.3)
Benign ovarian tumor	21 (15.1)
Chronic cervicitis	15 (10.8)
Endometrial hyperplasia without atypia	6 (4.3)
Carcinoma ovary	4 (2.9)
CIN	3 (2.2)
Normal	2 (1.4)
Carcinoma endometrium	2 (1.4)
Endometrial polyp	2 (1.4)
H. mole	1 (0.7)
Endometriosis	1 (0.7)

The correlation between clinical diagnosis and histopathology was significant at 0.01 level using Pearson correlation. In patients who had a hysterectomy because of fibroids (56 cases), the final histopathology report confirmed the diagnosis in 50 cases with a positive correlation of 89.2%. The twenty-three cases diagnosed clinically as DUB were pathologically proven as follows: fifteen adenomyosis, five endometrial hyperplasia without atypia, three fibroid. Similarly among 26 cases of benign ovarian cyst, histological correlation was in 72.3%. The final histopathological findings (Table 3) suggests that fibroid uterus is the most common indication for hysterectomy.

DISCUSSION

Hysterectomy is the most commonly performed gynaecological surgery throughout the world. Abdominal removal of uterus is total abdominal hysterectomy while removal of uterus is by vaginal route is termed as vaginal hysterectomy. Supracervical removal of uterus is termed as subtotal hysterectomy.⁸ In UK and USA around 60-80% hysterectomies are abdominal.⁹ It is usually performed to

relieve symptoms such as abnormal vaginal bleeding and pelvic pain and is often also performed as a definite management for gynecological diseases such as fibroids, endometriosis, adenomyosis and uterovaginal prolapse.⁵ We usually consider for age and parity before performing hysterectomy. Most of the patients were in the fifth decade (46.4%) which is similar to study by Jha R. et al. where mean age was 46.3 years.¹⁰ The average parity in our study was four with a range of zero to ten. Our finding is comparable with the zero to eleven parity range reported in Ibadan, Western Nigeria.⁹

The rate of concomitant salpingoophorectomy was found to be increasing with the increasing age of the patient.

The most common clinical indication for hysterectomy was fibroid uterus (40%) followed by benign ovarian tumor (18.7%) and dysfunctional uterine bleeding (16.5%). Commonest indication was fibroid and DUB (26%) in the study by Shergill SK.¹¹ Jha R. found that leiomyoma was the indication in 24.9% cases, ovarian tumour in 14.9% cases and DUB in 7.7% cases.¹⁰ Similar results have been reported by Pokras and Hufnagel.¹² Clarke A has reported the commonest indication to be DUB (58%), followed by fibroids (23.2%).¹³ Similarly Saleh S.S. also found DUB as commonest indication followed by fibroid though histopathology showed fibroid as most common finding.¹⁴ Lee NC found that out of 1283 cases studied, 80% of the preoperative diagnosis were confirmed in the potentially confirmable group.¹⁵ Miller studied 246 hysterectomy specimens and found that the clinical diagnosis were confirmed only in 50% of cases.¹⁶ Ojeda et al reviewed six hundred and twenty-one hysterectomies and the histopathologic examination revealed leiomyoma to be present in 278 (44.76%), endometrial hyperplasia in 139 (22.33%), adenomyosis in 87 (14.00%), malignant diseases in 76 (12.23%) and endometriosis in 40 specimens (6.44%).¹⁷ There were no histological abnormalities in 54 specimens of that series.

CONCLUSION

Hysterectomy will remain a common gynecological operation in both developing and developed countries. Uterine fibroids and the benign ovarian tumors are the common indications of hysterectomy. The clinical and the pathological correlation are poor when DUB was the preoperative clinical diagnosis. However, there was a very high correlation when the clinical diagnosis was a fibroid.

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