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Original Research Article

Clinico-histopathological correlation of abdominal hysterectomy

Sayeda Niger Sultana[1]*, Afrin Akter Sony[1], Moriam Pervin[2], M. A. Hamid[3]

[1]Department of Obstetrics and Gynaecology, [2]Department of Anaesthesia, Prime Medical College, Rangpur, Bangladesh
[3]Department of Burn and Plastic Surgery, Rangpur Medical College, Rangpur, Bangladesh

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***Correspondence:**
Dr. Sayeda Niger Sultana,
E-mail: nigern37@gmail.com

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ABSTRACT

Background: Hysterectomy is the most common gynaecological procedure performed. Abdominal hysterectomy remains the most common approach though recently there has been preference towards laparoscopic hysterectomy. It is still considered as the treatment of choice for benign lesion such as leiomyoma, adenomyosis, extensive pelvic infection or adhesions, dysfunctional uterine bleeding and obstetric complications. Objectives were to correlate the indications of abdominal hysterectomy to histopathological findings thus, determining histologically confirmed preoperative clinical diagnosis.
Methods: This study was conducted at the department of obstetrics and gynaecology, Bangabandhu Sheikh Mujib medical university, Dhaka from August 2010 to January 2011. This is a descriptive analysis of the patients who had undergone abdominal hysterectomy during the study period.
Results: One hundred patients undergoing abdominal hysterectomy were studied. Data were recorded on structured proforma, including demographic characteristics, clinical features and indications of the procedure. In. our study, it was observed that the most common clinical diagnosis was leiomyoma of uterus 52 (52%). Other clinical diagnosis was DUB in 30 cases (30%), adenomyosis in 7 cases (7%), endometriosis in 6 cases (6%). Pelvic inflammatory disease in 3 cases (3%), endometrial polyp (2%). Abdominal hysterectomy was the single approach done in these cases. Clinical, radiological as well as histopathology report correlated uterine leiomyoma very well and it was about 94.23%, while DUB was a disease of exclusion. In 53 cases combined pathology was found.
Conclusions: Hysterectomy is currently the most widely performed major operation in gynaecology and histopathology is mandatory for ensuring diagnosis and management. With the improvement in the different organ preserving options, hysterectomy in benign disease should only be opted when all the other conservative options failure.

Keywords: Hysterectomy, Indications, Histopathology

INTRODUCTION

Hysterectomy is the commonest gynaecological operation, with the annual rate of 560/100,000 women in the United States and 414/100,000 women in Finland.[1-3] It is a procedure whereby the uterus is removed using any of the various approaches either via abdominal or vaginal or endoscopic surgery for different benign or malignant conditions of female genital tract.[4-6] The surgical approach depends on the surgeon's preferences and experience, indications for surgery, nature of diseases and the patient characteristics and concomitant procedures. Historically Langen Beck performed the first abdominal hysterectomy in 1825. Seventy percent of hysterectomies nowadays, are abdominal and thirty percent (30%) are vaginal.[7] Hysterectomy is usually performed to relieve symptoms such as menorrhagia and pelvic pain and is often also performed as a definite management for gynaecological diseases such as fibroids, DUB endometriosis, adenomyosis. Hysterectomy means surgical removal of the uterus with or without cervix. It is one of the most commonly performed operations for women in the world estimates suggest that one in five women will have had their uterus removed by the age of 55. There are a number of medical conditions for which a hysterectomy may be necessary. However, in all most all cases, other treatment

methods will be tried first. Having a hysterectomy is usually the last resort option.[8] A number of minimally invasive surgical options for hysterectomy now exist but restricted availability and cost factor limit their use.[9] The endometrium represents a plethora of changes, ushered in by the complex interplay of endogenous sex steroids and other factors. The manifestation of various disease patterns can be detected by histological variations of the endometrium, taking into account the age of the women, the phase of her menstrual cycle and iatrogenic use of hormone. The evaluation of endometrial biopsy requires understanding of important clinical questions realistic expectation, systemic and practical approach. The clinical expectations for each group are unique as are morphological patterns: most commonly encountered. However, hysterectomy must never be done without proper indication. Hysterectomy should be performed when the risk of preserving the uterus is greater than the risk of removal or where there is no successful medical treatment.' Then histopathological examination of surgical specimen is mandatory and carries ethical, legal, diagnostic and therapeutic significance.[10]

METHODS

This was a descriptive type of observational study done in the department of obstetrics and gynaecology of Bangabandhu Sheikh Mujib medical university, Dhaka from August 2010 to January 2011. All the patients who had undergone abdominal hysterectomy during the study period were included in the study. Hysterectomy done by other approach (VH or minimal invasive hysterectomy), hysterectomy done for malignancy and emergency hysterectomy were excluded from the study. A detailed history, clinical examination and imaging study were done for pre-operative diagnosis. Histopathological confirmation was done after surgery all data placed in table and were expressed in frequency and percentage.

RESULTS

The age range was 30-50 years and the leading age group was 40-50 years. Majority of the respondents were from rural areas 53% and 47 patients were from urban settings. Among the subjects 74% were housewives and the rest 26% were service holders.

Table 1: Distribution of cases according to age group.

Age group (Years)	No. of patients, (n=100)	Percentage (%)
30-34	14	14
35-39	16	16
40-44	27	27
45-50	43	43

Seventy percent of cases undergoing abdominal hysterectomy were between 40-50 years.

Table 2: Distribution of cases according to presenting complaints.

Presenting complaints	No. of patients, (n=100)	Percentage (%)
Menorrhagia	71	71
Dysmenorrhoea	40	40
Excessive prevaginal discharge	15	15
Lump in lower abdomen	12	12
Dyspareunea	9	9
Pelvic pain	28	28

Menorrhagia (71%) was associated with dysmenorrhoea in 40%, pelvic pain in 28%, lower abdominal lump in 12% and excessive per vaginal discharge in 15% cases.

Table 3: Preoperative clinical diagnosis.

Clinical diagnosis	No. of patients, (n=100)	Percentage (%)
Leiomyoma of the uterus	52	52
Dysfunctional uterine bleeding	30	30
Adenomyosis	7	7
Endometriosis	6	6
Pelvic inflammatory disease	3	3
Endometrial polyp	2	2

The 52 cases had clinical presentation of uterine leiomyoma, which was the commonest presentation, other 7 cases (7%) were clinically diagnosed as cases of adenomyosis, about 30 cases showed no organic pathology diagnosed as dysfunctional uterine bleeding.

Out of 52 cases clinically diagnosed as leiomyoma of the uterus, histopathology revealed leiomyoma in 49 cases, adenomyosis in 2 cases and chronic cervicitis in 1 case. Leiomyoma was associated with chronic. Cervicitis in 13 cases (25%), with adenomyosis in 5 cases (9.62 %), with CIN-I in 4 cases (7.69%) and associated with endometrial hyperplasia is 2 cases (3.77%).

Out of 30 cases of DUB histopathology revealed organic pathology is the form of leiomyoma and adenomyosis in 24 cases, disordered proliferate and atrophic endometrium in 2 cases and cystic hyperplasia 1 case. DUB could be confirmed diagnosis in last 4 cases (Table 6).

Out of 100 cases, histopathology revealed uterine leiomyoma alone in 29 cases, 11 patients had adenomyosis and 53 patients had combined pathology.

Table 4: Histopathological diagnosis in clinically diagnosed cases of leiomyoma.

Clinical diagnosis	Histopathological diagnosis	No. of patients, (n=52)	Percentage (%)
Liomyoma of uterus (52)	Leiomyoma alone	26	50
	Leiomyoma of the uterus with chronic cervicitis	13	25
	Leiomyoma with adenomyosis	5	9.62
	Leiomyoma with CIN-I	4	7.69
	Adenomyosis with chronic cervicities	2	3.77
	Leiomyoma with endometrial hyperphasia	2	3.77
	Chronic cervicitis	1	1.87

Table 5: Histopathological diagnosis in clinically diagnosed cases of dysfunctional uterine bleeding.

Clinical diagnosis	Histopathological diagnosis	No. of patients, (n=30)	Percentage (%)
DUB (30)	Leiomyoma	3	10
	Adenomyosis	9	30
	Leiomyoma with adenomyosis	5	16.67
	Adenomyosis with chronic cervicitis	7	23.33
	Endometrial polyp	2	6.67
	Disordered proliferative and atrophic endometrium	2	6.67
	Chronic cervicitis	1	3.33
	Cystic hyperplasia	1	3.33

Table 7: Uterine pathologies identified in 100 cases of hysterectomy.

Pathology identified	No of patients, (n=100)	Percentage (%)
Leiomyoma of uterus	29	29.0
Adenomyosis	11	11.0
Chronic cervicitis	2	2.0
Endometrial hyperplasia	3	3.0
Endometrial polyp	2	2.0
Combined pathology	53	53.0

Figure 1: Specimen of a resected uterus with multiple fibroids.

DISCUSSION

Indications for abdominal hysterectomy vary from benign to malignant diseases. For purpose of clarity, we chose only one dominate pre-operative diagnosis as indication for hysterectomy for each case. Gambone and associates have pointed out that the process of using only a single designated indication and reviewing only two documents in the record i.e., the surgeon's pre-operative notes and the pathology report, greatly simplified the quality assurance process in order to monitor the justification for hysterectomy.[11]

A total of 100 patients ranging from 30-50 years were included in this study, who were managed by abdominal hysterectomy having menorrhagia in Bangabandhu Sheikh Mujib medical university, Dhaka during August 2010 to January 2011. The present study findings were discussed and compared with previously published relevant studies. In the present study, it was observed that occurrence of menstrual disorders of excessive type increase with age. The commonest age group in our patients was 40-50 years (70%) (Table 1). Similar age incidence reported by Railway hospital study at Rawalpindi 71%; where Yosuf and Moghal reported 38.06% and 30% respectively in this age group.[12-13]

The most common complaint was menorrhagia (71%), associated complaints in this study were pelvic pain in 28 cases (28%), dysmenorrhoea in 40 cases (40%) (Table 2). Shergill et al and Sculpher et al reported hysterectomy due to excessive menstruation were 66% and 69.60%.[14-18] Leiomyoma of the uterus was the most common cause

(52%) of menorrhagia diagnosed preoperatively in this study, which is the most common indication of hysterectomy. Similar results were reported by Fonseca et al (55%), a study of DAQ hospital and Nishar hospital, Multan in which 54.8% was leiomyoma of uterus.[10] Out of 52 cases clinically diagnosed fibroid was confirmed on histopathology in 49 cases (94.23%). In 53% of hysterectomy specimens more than one pathology was identified; the most common combinations were leiomyoma and adenomyosis in 10 cases. In 20 cases uterine leiomyoma was present with other pathology like chronic cervicitis, CIN and others. In 17 cases adenomyosis was present with other pathology rather than leiomyoma. So, in most cases, preoperative clinical diagnosis was confirmed on histopathological examination. Similar correlation was observed in other study. This study was similar to Abdullah study at king A. Aziz medical city, Jeddah, revealed leiomyoma in 34%.[15]

Hysterectomy was done for 30% cases of DUB, similar percentage are quitted by Layla (29%), Shergill et al (26%), Vessey et al (35.3%), Dewan (29%).[1,14,15,19] Out of 30 cases of DUB histopathology revealed organic pathology is the form of leiomyoma and adenomyosis in 24 cases, disordered proliferate and atrophic endometrium in 2 cases and cystic hyperplasia 1 case. DUB could be confirmed diagnosis in last 4 cases (Table 5).

The common surgical approach in this study was abdominal hysterectomy. Chryssiopaoulos et al studied over a period of 16 years and the abdominal approach was preferred in 85.33% and the vaginal route in 14.67%. Only few studies have compared pre-operative clinical diagnosis with the histo-pathologies of hysterectomy specimens.[16,17]

CONCLUSION

Hysterectomy is the commonest performed gynaecological surgery throughout the world. Uterine leiomyomas are the most common solid pelvic tumours in women and they can have serious adverse effects and impact on quality of life. As women postpone having children, gynaecologists will have to manage leiomyoma and polyps in a conservative manner. However, it is the responsibility of health care professionals to encourage teaching and implementation of alternative procedures to ensure that women receive the maximum benefits with least morbidity. Every hysterectomy specimen we subjected to histopathological examination histopathological analysis correlates well with the preoperative clinical diagnosis for hysterectomy. Histopathology is thus mandatory for confirming diagnosis and thus ensuring optimal management.

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