AN AUDIT OF CLINICOPATHOLOGICAL INDICATIONS OF ABDOMINAL HYSTERECTOMY

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ABSTRACT:

Objective: To determine clinical indications of abdominal hysterectomy and compare these with histopathological diagnosis.

Study design: A descriptive study.

Methods: Case records of all the women that underwent major gynaecological operations in one calendar year period i.e. January to December, 2005 were reviewed. The cases that underwent total abdominal hysterectomy were selected and studied for the indications. All the patients had been admitted through the out patient department (OPD) for the complaints of irregular vaginal bleeding with or without pain and mass in lower abdomen.

Results: A total of 306 major gynaecological operations were carried out, of which 180 (58.81%) were abdominal hysterectomies. Majority of the women (65%) were between 35–45 years of age. The most frequent presenting symptom was pain and irregular vaginal bleeding (57.5%), irregular vaginal bleeding (25%) and mass in lower abdomen (7.2%). Disparity was found between clinical and histopathological diagnosis in cases of leiomyoma (36% clinical and 38.3% histopathological) and adenoma (11.1% clinical and 27.2% histothological). Clinical diagnosis of dysfunctional uterine bleeding was made in (26.1%) of which only 20% were confirmed histopathologicaly.

Conclusion: There was a disparity of 6 – 16% between clinical and histopathological diagnosis especially in cases of adenomas, dysfunctional uterine bleeding and lieomyoma. Therefore, accurate clinical assessment of cases should be the main stay of diagnosis and categorization for different indications of hysterectomy.

Key words: Abdominal hysterectomy, dysfunctional uterine bleeding, lieomyoma.

INTRODUCTION

Abdominal hysterectomy (AH) is the second most common major operation in women in the reproductive age. Rates of the operation are increasing all over the world because of safety of the procedure. Abdominal hysterectomy involves complete removal of uterus and cervix through abdominal route. Various types of abdominal hysterectomy include total abdominal hysterectomy, subtotal hysterectomy,radical hysterectomy, interfacial and extra-fascial hysterectomy according to type of procedure adopted. The other type of hysterectomy involves removal of uterus and cervix per vaginum called vaginal hysterectomy (LAVH). More than 590,000 hysterectomies are annually performed in England[1-3] and an even higher proportion in USA. By the age of 60, over one third of American women have undergone hysterectomy. About 40% of these hysterectomies are done for dysfunctional uterine bleeding (DUB). The annual hospital costs for the operation currently exceed $ 5 billion[4-7].

There is substantial variation in hysterectomy rates according to geographic, patient related and physician

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related factors. The rates are highest in USA and lowest in Norway, Sweden and England[3,8]. Hysterectomy is performed more in black than white women and is performed more frequently by male gyneacologists[9,10]. Those variations along with concern about cost containment have led to the scrutiny of the appropriateness of the operation. The medical, emotional, sexual and economic considerations related to removal of the uterus are complicated by religious, cultural and financial pressures on patients and their families[6]. When performed appropriately, hysterectomy leads to patient's satisfaction and praise particularly when the decisions on part of the clinicians are precise and clear cut. The rationale is to avoid unnecessary hystrectomies, which involve a lot of economy as well as medical, sexual and emotional discomfort on the part of patients.

This study was done with the objective to compare indications of hysterectomy as diagnosed clinically with those confirmed histopathologically to find if any disparity exist between the two.

PATIENTS AND METHODS

This descriptive study was carried out at the department of Gynaecology and Obstetrics, Sheikh Zayed Medical Complex, Lahore. Case records of all the women underwent major gynaecological surgery in the hospital during January to December 2005 were reviewed. Out of 306 major gyneacological operations 180 were abdominal hysterectomies and all were included in the study.

All the patients had been admitted through the out patient department (OPD). In each patient coming with the complaint of irregular vaginal bleeding with or without pain in lower abdomen or mass lower abdomen a detailed medical, obstetric and gyneacological history was documented. Each patient under went a thorough clinical examination to rule out any medical condition such as jaundice, anemia, hypothyroidism etc. Pelvic examination was conducted and Pap smear taken for screening. Abdominal and pelvic ultrasonography was done in each case and results were documented. Laboratory tests, such as complete urinalysis, fasting and random blood sugar, complete blood, hemoglobin percentage, bleeding and clotting time, platelet count, liver and renal function test were routinely done in each case. If necessary, special tests such as thyroid functions, intravenous pyelography, barium enema and computed tomography, magnetic resonance imaging etc. was also carried out. Histopathology of the excised material was carried out in each case. Demography along with detailed history, physical and pelvic examination, laboratory and histopathology reports were all documented in especially developed proformas.

Percentages and proportions were calculated using Epi-info software.

RESULTS

During one year, 306 major gyaenocological surgeries were done, of which 180 (58.8%) were abdominal hysterectomies. Out of those, total abdominal hysterectomies (TAH) were done in 81 cases and TAH with bilateral salpingo - opherectomy in 99 cases.

Table –I shows the general clinical features of the subjects. Mean age was 47 ± 8.86 years, majority (65%) between 35 – 45 years. Only 60 (35%) women were perimenupausal. The rest were in the reproductive age group. Majority women (66.6%) were multiparous. The most common presenting complaints were pain in lower

Table I: Clinical presentation in abdominal hysterectomy cases

Variable	Number	Percentage
Abdominal hysterectomies *	**180**	**58.81%**
Menstrual reproductive status		
Reproductive	**120**	**66.6%**
Pre and post menopausal	**60**	**33.3%**
Age (years)		
35 – 40	**33**	**16.6%**
41 – 45	**87**	**48.3%**
> 46	**60**	**35.1%**
Mean age	**47 ± 8.86**	**-**
Parity		
Nullipara	**2**	**1.11%**
1 – 3 issues	**58**	**32.2%**
4 – 8 issues	**120**	**66.6%**
Symptoms		
Irregular bleeding P/v**	**45**	**25.0%**
Pain in lower abdomen	**18**	**10.0%**
Pain and Irregular P/v bleeding	**104**	**57.7%**
Mass in lower abdomen	**13**	**7.2%**

*** Total major gynecological surgeries = 306**

**** P/v= per vaginum**

abdomen and irregular vaginal bleeding (57.7%), 25% presented with irregular bleeding per vaginum alone and only 7% presented with mass in lower abdomen.

Clinical indications for abdominal hysterectomy are shown in table II both in reproductive and menopausal (peri and postmenopausal) women. Majority of the hysterectomies were done for fibroid uterus (41.6%, 25%), dysfunctional uterine bleeding (25%, 23.3%), adenomyosis (13.3%, 6.6%) and adnexal masses (9.1%, 11.6%).

Table II: Clinical indications for abdominal hysterectomy

Indication	Reproductive age (No = 120)	Pre and postmenopausal cases (No = 60)
Fibroid uterus	50 (41.6 %)	15 (25.01)
DUB *	30 (25.0%)	17 (28.3%)
Adenomyosis	16 (13.11%)	4 (6.6%)
Endometriosis or (Glandular hyperplasia)	6 (05.0%)	6 (10.0%)
Adnexal Masses	11 (09.1%)	7 (11.6%)
PID * *	3 (02.5%)	-
Endometrial polyp	2 (01.6%)	-
Carcinoma cervix	1 (0.83 %)	6 (10.0%)
Hydatidiform mole	1 (0.83%)	5 (8.3%)

*** DUB = Dysfunctional Uterine Bleeding.**
*** * PID = Pelvic Inflammatory Disease.**

Table III shows the difference of histological and clinical diagnosis. Histopathology confirmed leiomyoma in 38.3% cases versus clinical diagnosis of 36%, thus 2.3% clinical underestimation. Adenomyosis was clinically diagnosed in 11% but histopathology confirmed 27% cases; thus clinical under-diagnosis of 16% adenomyosis. However, dysfunctional uterine bleeding was overestimated clinically (26%) and confirmed histologically only in 20%.

Table III: Histopathological versus clinical diagnosis in 180 cases of abdominal hysterectomy

Indication	Clinical Diagnosis	Histopathological Diagnosis
Leiomyoma	65 (36.01)	69 (38.3 %)
DUB *	47 (26.1%)	36 (20.0%)
Adenomyosis	20 (11.1%)	31 (27.2%)
Adnexal masses	18 (10.0%)	14 (7.7%)
Malignancy	10 (5.5 %)	10 (5.5 %)
Endometriosis	6 (3.3%)	6 (3.3%)
Others	14 (7.7%)	14 (7.7%)

*** DUB = Dysfunctional uterine bleeding.**

Post-operative complications were only few. Febrile morbidity occurred in 10%, urinary tract infection observed in 11.1% cases and wound infection in one case (0.5%). There was no mortality (Table IV).

Table IV: Complications of abdominal hysterectomy

Complication	Number	Percentage
Febrile morbidity	18	10.0%
Urinary tract infection	20	11.1%
Wound infection	1	0.5
Death	NIL	-

DISCUSSION

Hystrectomy is second only to cesarean section as the most frequently performed major gynaecological operation in the United States[2,3]. In this study, over a period of one year, 306 major gynaecological surgeries were done, of which 180 (58.81%) were abdominal hystrectomies. Sixty five percent of women underwent hysterectomies during the reproductive age (35 – 45 years) and were multiparous (4 – 8 issues).

Dysfunctional uterine bleeding (DUB) was the clinical indication in 26% cases but it was confirmed histologically only in 20%. Studies have shown DUB as the commonest indication for hystrectomy[3]. A recent study carried out at Ayub Medical College, Abbotabad showed DUB as the indication for hystrectomy in 38% women[11], however in this study DUB was confirmed histopathologicaly only in 20% versus 26% clinical diagnosis. This shows a clinical over-estimation of DUB. Leiomyoma (fibroid of uterus) was the most common clinical indication (36%) in this study and histopathology confirmed this diagnosis in 38% hystrectomies indicating a slight clinical undere-stimation. Approximately 30% hystrectomies in the West have been reported due to leiomyomas[12]. This study however, shows somewhat higher prevalence of leiomyomes in our population. The reasons may be racial or geographical. Adenomyosis was next commonest cause for hysterectomy. Clinical diagnosis was made in 11% cases but histological diagnosis of adenomyosis was made in 27% hystrectomies thus indicating substantial underestimation of the condition clinically. Western studies have documented a 20% prevalence of adenomyosis[12-14] though few studies carried out in our own population show it to be 6 % only. Disparity of clinical and histological diagnosis was found least in cases of adnexal masses and malignancy. Malignancy was diagnosied clinically 5.5% and confirmed

5.5% histologically. The pre-operative biopsy and Pap. smear screening might have helped the accurate diagnosis.

As far as the complications were concerned, in this study they were noticed only in few patients compared to other documented studies[4,15,16]. Some studies have documented wound infection in 4.11% but in the present study it was observed in only 0.5%. However urinary tract infection was noticed in 11% and febrile illness in 10% postoperatively. There was no mortality although 1 – 2 % mortality has been documented in some studies[16].

With the advent of new techniques of diagnosis and treatment such as laproscopic vaginal hysterectomy and gene therapy[17-19] in the management of leiomyoma, current indications for abdominal hystrectomy have evolved considerably from the time when sterilization, fear of cancer and undiagnosed pelvic pain were common reasons for the procedure. Particularly in the case of hysterectomy, a procedure that in most cases is performed to relieve symptoms and improve the quality of life, accurate clinical judgment and patients preferences regarding treatment alternatives must be considered carefully.

CONCLUSION

A disparity exists between clinical and histopathological diagnosis, which in this study varies from 6 – 16%. Therefore, it is of utmost importance for the clinicians to be more critical and precise in making this decision in order to avoid unnecessary surgeries.

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Statistics

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