

ORIGINAL ARTICLE

Study on Rationality of Abdominal Hysterectomy With Its Clinical Correlations And Histopathological Outcome

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Abstract :

A cross sectional prospective study was done on 104 patients admitted in the Department of Obstetrics and Gynaecology, Holy Family Red Crescent Medical College Hospital during specific period of one year. The practice of hysterectomy dates back to the middle of 19th century following myomectomy. The indications for hysterectomy were to save life of the patient, relieve sufferings or to correct deformity of organs. Pre-tested structured clinical data sheet was used to obtain necessary data along with records of histopathological reports. The patients who undergone abdominal hysterectomy were mostly between the age 41 to 45 years with Inclusion criteria of Leiomyoma, dysfunctional uterine bleeding, chronic cervicitis, adenomyosis, pelvic inflammatory disease, cervical polyp, post-menopausal bleeding, pelvic endometriosis, choriocarcinoma and ovarian cyst. Most frequent indication was leiomyoma and the chief complain was menorrhagia. Both ovaries had to be removed in most of the patients (72) out of total 104 cases. In some cases one ovary was preserved as per clinical indications. The complications of hysterectomy in present study was found 24% which was much lower than the other studies done earlier as 37% and 35%¹⁴. This finding may be due to increased use of prophylactic antibiotic, surgical techniques and improvement of overall aseptic and antiseptic measures taken pre, per and post operative period.

Introduction :

The story of hysterectomy dates back to the middle of 19th century when it was first performed beyond the limitation of ovariectomy and myomectomy. In 1853, Dr. Walter Burnham of Massachusetts performed the abdominal hysterectomy to remove leiomyomatous uterus in course of removing large ovarian cyst. Of his next 15 cases, only 3 patients survived. Later Lawson Tait attempted to solve the problem of leiomyoma by castration, by means of

bilateral oophorectomy. Till 1880, total 119 cases of hysterectomy was reviewed and surgical mortality was almost 75%. During the subsequent period, the post operative fates became a subject of dispute. In early 20th century, as ovarian physiology began to be understood, the conservation of ovaries was practiced. But concept of prophylactic surgery was gaining acceptance in pre-menopausal and post-menopausal women to fight back ovarian cancer. Treatment of cervical cancer leads the surgeons to do simple hysterectomy to save the life and relieve from sufferings. The indications of hysterectomy are may be due to pathology in uterus like fibromyoma, adenomyosis, cervical carcinoma, endometrial carcinoma, sarcoma, choriocarcinoma, malignancy of ovary and fallopian tubes, DUB, PID, endometriosis, ectopic pregnancy, uterine inversion, ruptured uterus, septic abortion and many more. Hysterectomy is one of the most commonly

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performed of major operation in gynaecology. About 8.5 million women of age between 15 to 44 years had hysterectomy in United States during 1990 to 1999 with an annual incidence rate was almost 6 per 1000 women. Significant increased rate of hysterectomy may be attributed to the prophylaxis against uterine cancer, genital prolepses and peri-menopausal menorrhagia. Improved hospital care, availability of blood transfusion, advanced anesthesia and above all the advent of antibiotics has opened up a new era and thereby broadened the indications for hysterectomy with minimum post-operative morbidity and mortality. In Bangladesh, hysterectomy is performed for more or less similar indications as those performed in advanced countries, the only difference being in pre-operative evaluation of the case. Diagnosis is made mostly on clinical correlations rather than modern laboratory investigations because of limited facilities and patients' affordability as per socio-economic status. Even in the clinical assessment, there are considerable problems as the patients are mostly illiterate and ignorant about the gravity of symptoms. Therefore the study was done to correlate the indication of hysterectomy on the basis of clinical manifestations, pre-operative findings and histopathological reports.

Materials and method :

A cross sectional prospective study was done on 104 patients admitted in the Department of Obstetrics and Gynaecology, Holy Family Red Crescent Medical College Hospital (HFRCMCH) during specific period of one year. All patients were explained about the method and randomly selected for interview who volunteered with informed consent. Among the large number of volunteers, the patients were included in the study by cross-checking the inclusion and exclusion criteria

Inclusion criteria : Leiomyoma, dysfunctional uterine bleeding, chronic cervicitis, adenomyosis, pelvic inflammatory disease, cervical polyp, post-menopausal bleeding, pelvic endometriosis, choriocarcinoma, ovarian cyst.

Exclusion criteria : Septic abortion, cervical carcinoma, rupture uterus, post-partum haemorrhage, ovarian cancer.

Pre-tested structured clinical data sheet was used to obtain necessary data along with records of histopathological reports.

Results:

The patients who undergone abdominal hysterectomy were mostly between the age 41 to 45 years. Table-I shows the distribution of patients by age group and the frequency of indications correlated with clinical diagnosis.

Table-I : Distribution of hysterectomy patients by age and indications

Indications	35 - 40 years	41 - 45 years	46 - 50 years	Above 51 years	Total
Leiomyoma	6	17	9	3	35
Dysfunctional uterine bleeding	4	12	7	0	23
Chronic cervicitis	8	7	1	1	17
Adenomyosis	4	3	1	0	8
Pelvic inflammatory disease	4	1	2	0	7
Cervical polyp	0	4	1	1	6
Post menopausal bleeding	0	0	0	4	4
Endometriosis	2	0	0	0	2
Choriocarcinoma	1	0	0	0	1
Ovarian cyst	0	0	0	1	1
Total	29	44	21	10	104

Table-II shows the common chief complaints of the patients for which they got admitted and the clinical diagnosis before hysterectomy. Most frequent indication was leiomyoma (Fig-1) and the chief complain was menorrhagia.

Table-II : Chief complaints of patients correlated with clinical indications

Chief complaints	Leiomyoma	DUB	Chronic cervicitis	Adenomyosis	PID	Cervical polyp
Menorrhagia	33	22	4	6	1	4
Dysmenorrhea	17	9	7	4	3	3
Swelling in lower abdomen	1	-	-	1	-	-
Heaviness in lower abdomen	8	2	-	2	1	-
Pain in lower abdomen	16	11	16	6	6	5
P/V discharge	2	7	14	1	5	4
Dysperunia	-	-	-	-	3	3
Plymenorrhagia	-	3	-	-	-	-

Table-III shows the correlation of the most frequent indication for hysterectomy (leiomyoma) with pre-operative clinical diagnosis with patient's complain followed by post-operative histopathological examinations. Significant number of leiomyoma (68.57%) was correctly diagnosed and justified by histopathology.

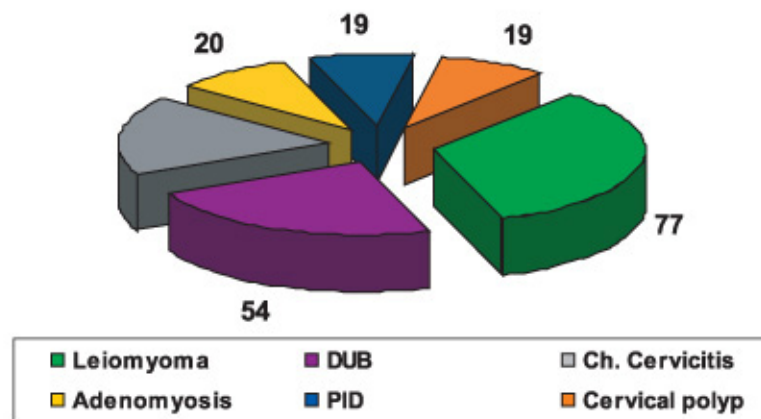
Table-III : Correlation of clinical diagnosis of leiomyoma with post-hysterectomy histopathological findings

Number of cases	Chief complaints	Histopathological findings	Final diagnosis
24	Menorrhagia Dysmenorrhoea Lower abdominal pain/heaviness	Endometrium- proliferative phase Myometrium- leiomyoma Cervix- ch. cervicitis Endometrium- proliferative	Leiomyoma uterus (68.57%)
03	Menorrhagia Dysmenorrhoea Lower abdominal pain	phase Myometrium- adenomyosis Cervix- ch. cervicitis Endometrium-proliferative phase	Adenomyosis (8.57%)
08	Menorrhagia Dysmenorrhoea Heaviness in lower abdominal	Myometrium- leiomyoma with adenomyosis Cervix- ch. cervicitis	Leiomyoma with adenomyosis (22.85%)

Table-IV shows the fate of ovaries during the abdominal hysterectomy according to indications. Both ovaries had to be removed in most of the patients (72) out of total 104 cases. In some cases one ovary was preserved as per clinical indications.

Table-IV : Fate of ovaries during hysterectomy related to indications

Indications	Number of patients	Both ovary preserved	Both ovary removed	One ovary removed
Leiomyoma	35	5	24	6
Dysfunctional uterine bleeding	23	5	17	1
Chronic cervicitis	1	7	6	3
Adenomyosis	8	2	5	1
Pelvic inflammatory disease	7	1	6	0
Cervical polyp	6	1	5	0
Post menopausal bleeding	4	0	4	0
Endometriosis	2	0	2	0
Choriocarcinoma	1	1	0	0
Ovarian cyst	1	0	1	0
Total	104	21	72	11

**Figure-1 :** Frequency of common clinical indications of abdominal hysterectomy**Discussion :**

The study was done to find out the common indications, complications, relation with age and parity of abdominal hysterectomy and correlate clinical presentation with pre-operative and histopathological findings. Pre-operative diagnosis most oftenly presumed by the description of symptoms experienced by the patients that may or may not be associated with the abnormalities found on pathological examinations. In a study by Dicker et al¹ on relationship between pre-operative findings and pathological examinations showed 52% of the hysterectomies were performed on the basis of pre-operative diagnosis that correlates with histopathological finding. Remaining 48% were not correlated with post-operative histopathology.

In present study, an attempt has been made to confirm the pre-operative diagnosis and correlate with clinical presentations followed by post-operative histopathological examinations of hysterectomy specimens. Total 35 cases were clinically diagnosed as leiomyoma, 3 of those were adenomyosis, 8 were leiomyoma with adenomyosis and 24 cases were confirmed as leiomyoma by histopathological examination. This finding shows better correlations (68.57%) between clinical diagnosis and histopathological confirmations comparing to a retrospective study by Schaffer et al² on 246 hysterectomies that showed almost 31% specimens had no abnormalities on histopathological examinations. Among 23 cases of dysfunctional uterine bleeding (DUB), only 9 cases were found correct, 10 cases were diagnosed as

adenomyosis, 3 cases as leiomyoma and 1 case as leiomyoma with adenomyosis by histopathological confirmation. The average age of the patients undergone hysterectomy in the present study was 35-50 years which was similar to other studies by Amirikia and Dewan F that also showed that the hysterectomy was indicated in parous patients^{3,4}. Leiomyoma was found the most frequent cause of hysterectomy (33.7%) in this study and the finding was very close to other studies by Dewan F (34%), Nahar L (35%)⁵, Akhter M (36%)⁶ on Bangladeshi women at different times. Similar findings were observed as DUB was the second most common indication of hysterectomy (22.1%) in the present study.

Hysterectomy done for chronic cervicitis and for pelvic inflammatory disease showed wide variations in different studies ranging from 2.03% to 16.3% at different times. Poor socio-economic condition and illiteracy resulting to low standard of obstetric care and increased incidence of reproductive tract infections is observed in this study. The complications of hysterectomy in present study was found 24% which was much lower than the other studies done earlier as 37% and 35%⁵. This finding may be due to increased use of prophylactic antibiotic, surgical techniques and improvement of overall aseptic and antiseptic measures taken pre, per and post operative period. Only 2 doses of metronidazole or suction drainage of the vaginal vault after hysterectomy reduces febrile morbidity from 48% to 8%, infection morbidity from 46% to 16%, urinary tract infection from 30% to 10% and pelvic or abdominal wound infection from 18% to 2% only⁷.

Hysterectomy is now the most widely performed major operation in gynaecology with 24% of post-operative morbidity and 1% of wound infection. But no patient died from pre or post-operative complications or wound infection out of 104 patients in present study. This may be due to improvement of surgical technique, safety of anesthesia and wide spectrum of antibiotic coverage. In patients who were incapacitated and distressed by complaints of prolonged bleeding due

to functional menorrhagia or leiomyoma, pelvic pain for infection or endometriosis, hysterectomy was a blessing to them as removal of the diseased organ. While performing hysterectomy, the patient should be counseled and informed about the consequences of the operation so that they accept the cessation of menstruation normally.

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