

Original Article

Clinico-Pathological Study of Abdominal Hysterectomies

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Abstract:

Hysterectomy is the commonest gynaecological operation. 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. A Cross-sectional observational study was done in the Department of Obstetrics and Gynecology during the period from 1st January to 31st December 2015 at Faridpur medical college and hospital, Faridpur. This study was done to correlate the indications of abdominal hysterectomy to histopathological findings thus, determining histologically confirmed preoperative clinical diagnosis. 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 this study, leiomyoma of the uterus was found to be the major indication of hysterectomy in 35% of total cases, followed by dysfunctional uterine bleeding (DUB) in 26%, and pelvic inflammatory disease (PID) in 6%. Histopathological confirmation of pre-operative diagnosis was 100% for malignancy, 85.71% for fibroid and 65.38% for DUB. Hysterectomy is currently the most widely performed major operation in gynecology and histopathology is mandatory for ensuring diagnosis and management of malignant diseases.

Key words: Hysterectomy, Indications, Histopathology.

Introduction:

Hysterectomy is the commonest gynecological operation¹, with the annual rate of 560/100,000 women in the United States and 414/100,000 women in Finland^{2,3}. It is still considered as the treatment of choice for benign lesions such as myoma, adenomyosis, extensive pelvic infection or adhesions, dysfunctional uterine bleeding (DUB) and obstetric complications. The ratio is still 1:5 in the United Kingdom at some stage of female reproductive life. Nearly 20-30% of women are diagnosed with DUB, and 60% of them undergo hysterectomy^{4,5}.

A constructive but critical report by D'Esopo indicated that most hysterectomies performed by specialist are justifiable even though the uterus shows no evidence of any pathological condition as in prolapse and recurrent functional bleeding⁶. Historically Langen Beck performed the first abdominal hysterectomy in 1825. Seventy percent (70%) of hysterectomies nowadays, are abdominal and thirty percent (30%) are vaginal⁷. Histopathological examination of surgical specimens carries ethical, legal, diagnostic and therapeutic significance. A variety of conditions in gynecological practice require removal of the uterus that may show no gross microscopic pathology when examined by the pathologist. Removal of a normal uterus may be indicated and permitted in the treatment of ovarian, fallopian tube and vaginal cancer, pelvic inflammatory disease, endometriosis, DUB, pelvic organ prolapse, pelvic pain and pelvic tuberculosis⁸.

Adjuvant treatment is dependent upon extension and progression of genital cancer, where histopathology is of significant diagnostic value. Histopathology can diagnose adenomyosis as well, which leave DUB as an exclusion. On the other hand, suspected malignancy, concerned by clinical feature and histopathology, may be aided to rule out the suspicion.

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Therefore, the main objective of this study was to correlate between indications of abdominal hysterectomy and histopathological findings, thus determining histologically confirmed pre-operative clinical diagnoses. Failing this may result in sub-optimal care or treatment and over treatment of certain diseases, in particular, the malignant conditions.

Material and Methods:

This cross sectional study was conducted in the Department of Obstetrics and Gynecology of Faridpur Medical College & Hospital, Faridpur during 1st January to 31st December 2015. The study included all women undergoing planned abdominal hysterectomy. Proforma was designed to collect and analyze the data regarding history, clinical examination, investigations, surgical procedure and histological findings. Only one dominant diagnosis was considered and documented as the indication for the procedure. Hysterectomy specimens were saved in 10% formalin and sent to the Department of Pathology. Histopathology reports were analyzed and compared with the indications of surgery. Any hysterectomy specimen was considered to be normal if it showed no abnormality except functional ovarian cysts or metaplasia/inflammation of the cervix.

Results:

Out of 100 patients 90% women belonged to the age group between 31-50 years, 3% between 21-30 years, and 7% were >60 years. All the patients are found to be parous having 1-5 children. Presenting complaint was menorrhagia and pain in 22% of cases and post-menopausal bleeding in 4% patients. One patient presented with severe post-partum haemorrhage. Various indications for hysterectomy are listed in table-I. Commonest indication was fibroid followed by DUB. Table-II shows percentage of confirmation of pre-operative diagnosis by histopathology. Table-III shows histo-pathology reports which did not match the pre-operative clinical diagnosis.

Table-I: Indications of abdominal hysterectomy

Indications	N (100)	%
Leiomyoma uterus	35	35
Dysfunctional uterine bleeding	26	26
Ovarian tumour	6	6
Carcinoma cervix	6	6
Pelvic inflammatory Disease	11	11
Endometrial carcinoma	2	2
Chronic Cervicitis	8	8
Endometriosis	3	3
Choriocarcinoma	1	1
Ruptured uterus	1	1
Post-partum haemorrhage	1	1

Table-II: Percentage of confirmation of various pre-operative diagnosis by histo-pathology.

Pre-operative Diagnosis/Indications	N (100)	%
Leiomyoma uterus	35	85.71
Dysfunctional uterine bleeding	26	65.38
Ovarian tumour	6	100
Carcinoma cervix	6	100
Pelvic inflammatory Disease	11	100
Endometrial carcinoma	2	100
Chronic Cervicitis	8	100
Endometriosis	3	100
Choriocarcinoma	1	100
Ruptured uterus	1	100
Post-partum haemorrhage	1	1

Table-III: Histo-pathological reports inconsistent with pre-operative diagnoses

Pre-Operative Diagnoses	Histo-pathology Report	No	%
Leiomyoma (n=5)	Adenomyosis	3	60
	DUB	2	40
	Total	5	100
DUB (n=9)	Adenomyosis	4	44.44
	Leiomyoma	2	22.22
Leiomyoma with adenomyosis		3	33.34
	Total	9	100

Discussion :

Indications for abdominal hysterectomy vary from benign to malignant diseases. For purpose of clarity, we chose only one dominant 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 hysterectomy⁹. In this study, incidence is higher among age group of 30-50 years. In Amirikia et al and Dewan series, age of the women had undergone hysterectomy was within 30-50 years^{10,11}. In a study in Nepal¹², the mean age of women undergoing hysterectomy was 46. All the patients in our study are found to be parous having 1-5 children which was consistent with these studies^{13,14}. This high parity can be explained by the lower use of contraceptive methods in our country.

The commonest presenting symptom in the study population was menorrhagia with or without pelvic pain. It is well known that perimenopausal age group and high parity are associated with these symptoms. This was also seen by Shergill SK, who found that abnormal menstrual flow was the commonest complaint seen in 66% cases¹⁵.

The indications for abdominal hysterectomy in our study were consistent with other studies. Commonest indication was fibroid (34%) and DUB (26%) in the study by Shergill SK¹⁵, Jha R found that leiomyoma was the indication in 24.9%, ovarian tumour in 14.9% and DUB in 7.7% cases¹². Similar results have been reported by Pokras and Hufnagel¹⁶.

Upon review of histopathology reports, leiomyoma was the most common diagnosis in our study, followed by adenomyosis. Sobande AA et al also found that fibroid was the most common pathology seen in 25.8% of hysterectomy specimens followed by adenomyosis (22.7%)¹⁷.

Only few studies have compared pre-operative diagnoses with the histopathology of hysterectomy specimens. We have found that majority of pre-operative diagnoses of our cases were confirmed on histopathology. Lee NC et al studied 1283 women where 80% of the pre-operative diagnoses were confirmed in the potentially confirmable group¹⁴. Miller NF studied 246 hysterectomy specimens and found that clinical diagnoses were confirmed in 50% cases¹⁸.

Clinical features of leiomyomas are highly suggestive of their diagnosis, so a high confirmation rate in our study was not surprising and is compatible with Lee NC study¹⁴. In our study 26% of total cases were DUB in pre-operative diagnosis. Confirm diagnosis after histopathology of DUB was 65.38%. Shergill SK showed that DUB was confirmed in 30.8%¹⁵, while Lee NC found that DUB was confirmed in 38% cases¹⁴. Miller NF reported that 31% specimens were normal on histopathology¹⁸. Foster HW found that 16.9% uteri were histopathologically normal¹⁹. Rest of our cases pre-operatively diagnosed as DUB, were actually found to show some pathology, the commonest being adenomyosis. Same result is reported by Shergill SK, where adenomyosis, leiomyoma, polyps and endometritis were found on histopathology of DUB cases¹⁵. Transvaginal ultrasound is the preferred choice for diagnosis of adenomyosis which is also dependent on sonographers' skills²⁰. As we only used transabdominal ultrasound for clinical diagnosis, adenomyosis was under-diagnosed in our series.

Conclusion:

Hysterectomy is the most widely performed major operation in gynecology. While confirming the pre-operative diagnoses by histopathological examination,

high confirmation rates were found for endometrial carcinoma, leiomyomas, ovarian tumours and PID. Some of the patients pre-operatively diagnosed as DUB were found to have adenomyosis. Histopathology is mandatory for confirming diagnosis and thus ensuring optimal management, particularly in malignant disease.

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