ORIGINAL ARTICLE

Clinico-Pathological Study of Hysterectomy at Pak Red Crescent Medical and Dental College

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ABSTRACT

Objective: To determine the common pattern of leisons identified in hyterectomy specimens and to correlate the histopathological findings with clinical indications.

Study Design: A Descriptive study.

Place and Duration of Study: Study was conducted in the Department of Obstetrics and Gynaecology of Red Crescent Medical College Hospital from 1st July 2015 to 1st July 2017.

Materials and Methods: In the period between 1st July 2015 to 1st July 2017 data including Age, Parity, Presenting complaints and indication for hysterectomy was obtained from patients. The type of hysterectomy was also reported. Specimens were preserved in 10% Formalin. Histopathology results of all hysterectomy specimens were collected.

Results: During two year study a total of 100 hysterectomies were performed. The patient age ranged between 35-60 years with an average of 45 years old and peak parity was 4-8. The most common presenting complaint was menstrual irregularities followed by lower abdominal pain. Hysterectomy with bilateral salpingo-oophrectomy was performed in 75% of cases. Hysterectomy alone was performed in 15% and in 10% of cases vaginal hysterectomy was performed. In 35% cases the indication of hysterectomy was fibroid uterus followed by dysfunctional uterine bleeding in 15% of cases. The commonest histopathological diagnosis made was chronic cervicitis i.e in 42% cases, which was an incidental finding followed by fibroid uterus in 40% of cases.

Conclusion: This study confirms that benign diseases are more common than their malignant counterparts and the most common pathology identified is chronic cervicitis.The clinical and histopathological correlation is 100% in case of leiomyoma, cervical and endometrial polyps. Seventy four cases were correlated clinically with histopathological diagnosis.

Key Words: *Leiomyoma, Menorrhagia, Total Abdominal Hysterectomy, Vaginal Hysterectomy.*

Introduction

Abdominal hysterectomy means complete removal of uterus through abdominal route. Hysterectomy is the most commonly performed major gynaecological surgery throughout the world. It is performed in 560 / 100,000 women per year in the US[1] and 414 / 100,000 women per year in Finland.[2] Hysterectomy rate varies from place to place depending upon patient and clinician related factors.[3]

Hysterectomy is a successful operation in terms of symptom relief and patient satisfaction. It provides definitive cure to many diseases involving uterus as well as adnexa, eg, fibroids, DUB, adenomyosis, endometriosis, pelvic inflammatory disease, pelvic organ prolapse and malignancy.

Histopathological examination of surgical specimens carries ethical, legal, diagnostic and therapeutic significance. A variety of conditions in gynecological practice require removal of a uterus that may show no gross or 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 tuberculosis.

The diagnostic value of histopathological examination is well explained in patients with genital cancer where adjuvant treatment is dependent upon grade and extent of invasion of disease. Similarly diagnosis of adenomyosis is only established by

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Funding Source: NIL; Conflict of Interest: NIL
Received: Oct 27, 2017; Revised: Feb 07, 2018
Accepted: Feb 12, 2018

histopathological examination, while DUB is a diagnosis of exclusion. Conversely, many patients may be suspected of having a malignancy on pre-operative assessment e.g. those with postmenopausal bleeding and histopathological examination may aid to rule out this suspicion.

The purpose of this study was to correlate various indications of abdominal hysterectomy with the histopathological findings of the specimens, thus determining the percentage of the pre-operative clinical diagnoses that were confirmed on histopathological examination. We also wanted to determine the frequency of unexpected disease, thus high lighting the need for subjecting each specimen for histopathological examination. Failing this may result in sub-optimal care or treatment and over treatment of certain diseases, in particular the malignant conditions.

Materials and Methods

This descriptive study was conducted in the department of Gynae/Obs Department at Red crescent teaching hospital. It was retrospective analysis of 100 patients who had hysterectomy as an elective procedure had specimen including the appendages examined histopathologically over 2 year between 1st July 2015 and 1st July 2017. Study protocol was approved by institutional ethical committee.

The study included all women undergoing planned abdominal hysterectomy. Data was recorded on proformas, including demographic characteristics and clinical features. Only one dominant diagnosis was considered and documented as an indication for the procedure. Hysterectomy specimens were saved in 10% formalin and sent for histopathological examination. Abdominal hysterectomy for uterine malignancies and for emergency conditions e.g obstetrical haemorrhage were excluded. Histopathology reports were analysed and compared with the clinical indications of surgery. Data were analysed using SPSS version 22. Frequency and percentage were calculated for categorical variables.

Results

The age group of patients ranged from 35 to 65 years with mean age of 50 years (Table I). 50 % of patients belonged to the age group between 45 -55 yrs. 35% between 41 - 44 yrs . 8 % were <40 years . 7% were >55 yrs. 63 .8% had parity of >5 . 4 % were nulliparous."

In this study 100 cases of hysterectomy were studied at Red Crescent Medical College Dina Nath. The various indications for hysterectomies are depicted in Table I. All were for benign indications. The most common indication for hysterectomy was leiomyoma (35%). This was followed by adenomyosis (15%) and dysfunctional uterine bleeding (15%). The most common clinical presentation was menorrhagia. Some of the cases presented with dysmenorrhea, low backache and dyspareunia. The most common type of hysterectomies were Total Abdominal hysterectomy with Bilateral saplingo-oophrectomy followed by Total Abdominal hysterectomy. Histopathology reports of all hysterectomies were reviewed (Table II).

Seventy four cases were correlated clinically with histopathological diagnosis. Twenty three had a different diagnosis than the clinical one (Table III).

Table I: Clinical Indication for Hysterectomy and Age Distribution of Study Population (N= 100)

Clinical Indication	No of Cases	Percentage
Uterine Leiomyoma	35	35%
Dysfunctional Uterine bleeding	15	15%
Endometrial Polyp	5	5%
Adenomyosis	10	10%
Endometrial Hyperplasia	15	15%pp
Uterine Prolapse	7	7%
Chronic Pelvic Pain	1	1%
Post Menopausal Bleeding	2	2%
Ovarian Cyst	2	2%
Cervical Polyp	3	3%
Age in Years	**No of Cases**	**Percentage**
35-40	8	8%
41-44	35	35%
45-55	50	50%
>55YRS	7	7%

Table II: Pattern and Frequency of Uterine Histopathology Identified in 100 Hysterectomy Cases

Histopathological Diagnosis	Number	Percentage
Leiomyoma	40	40%
Adenomyosis	7	7%
Endometrial Hyperplasia	20	20%
Endometrial Polyp	5	5%
Chronic Cervicitis	42	42%
Benign Serous Cyst Adenomas	2	2%
Cervical Polyp	4	4%
Atrophic Endometrium	7	7%

Table III: Histopathological Reports Inconsistent with Pre- Op Diagnosis

Disease	Pre op Diagnosis	Histopathological Report
Dysfunctional Uterine Bleeding	15	7 ...DUB 8..chronic cervicitis
Adenomyosis	10	7..adenomyosis 3..fibroid
Endometrial Polyp	5	8
Fibroid Uterus	35	40
Endometrial Hyperplasia	15	11...endometrial hyperplasia 3.....endometrial polyp 1.....chronic cervicitis

Discussion

Hysterectomy offers a definitive cure for women with heavy bleeding associated with fibroids who have completed child bearing.[4] Although expensive in the short Term and not without risk[5],it may provide a cost effective option for women who are less likely to benefit from more conservative approaches. The Abdominal route has been most commonly used for large uteri although the vaginal route can be used by experienced operators,[6] usually after GnRH pre treatment.

A large cohort study of 37,298 hysterectomies performed in UK for benign indications reported an operative complication rate of 3.5 %, A post operative complication rate of 9% and an overall mortality rate of 0.38 per 1000.[7] Mortality was 0.25 per 1000 in women undergoing hysterectomy for menstrual problem. The role of subtotal hysterectomy remains unclear. Women undergoing subtotal hysterectomy should be warned about a 7% risk of occurrence of ongoing menstrual bleeding.[8] Hysterectomy may have long term implications for bladder function; a systemic review[9] estimated a long term increase in the odds of developing urinary incontinence following hysterectomy. A recent Scottish study found an increased risk of pelvic floor or urinary incontinence surgery following hysterectomy for heavy menstrual bleeding compared with endometrial ablation.[10]

Few studies have been done in our community regarding histopathological analysis of hysterectomy specimens and relationship between the preoperative clinical diagnosis and histopathological diagnosis[11]The commonest type of surgical resection was Total Abdominal Hysterectomy with Bilateral salpino-oophrectomy (TAH with BSO) (58%)followed by TAH (Total Abdominal Hysterectomy)(38.3%).[12] The aim of our study is to analyse the common pathologies identified in hysterectomy specimens and to correlate the findings with the clinical indications. The commonest estimated age range of hysterectomy in our study is 41-50 years which is similar to that reported by Gousia Rahim Rather and Prveen S Tayyab S.[13,14] The commonest presenting complaints in our study were menorrhagia followed by polymenorrhagia. The Rashmi Verma study also revealed that menstrual disturbance was the most important indication for hysterectomy.[15] This was also seen by Shergill SK and Riffat Jaleel, who found that abnormal menstrual flow was the commonest complaint in 66% of cases.[16,17] In this study main indication for hysterectomy was leiomyoma 35 (35%) cases. Similar is found in studies by Sumatra et al and Leung PL followed by endometrial hyperplasia (16%), DUB(10%)cases.[18,19]

Only few studies have compared pre-operative clinical diagnosis with histopathology of hysterectomy specimens. We have found that 74% of our pre operative diagnosis were confirmed on histopathology like fibroid uterus, uterine polyps and utero vaginal prolapse and cervical polyp have 100% diagnosis confirmed on histopathology and same was reported by G Gupta etal.[20]Chronic cervicitis is an extremely common condition in adult female, at least at the microscopic level, chronic cervicitis was commonest finding in our study 42% which was an incidental finding. Same results were obtained by Ghousia Rahm Rather etal.[13] Leiomyoma was the second most common histopathological diagnosis. Fibroid was most common indication for hysterectomy.[21] 35 cases has preoperative indication of Leiomyoma in our study and was confirmed in 40 cases (100%). Adenomyosis was an indication for hysterectomy in 10 cases. Adenomyosis is rarely diagnosed pre operatively and is still largely under diagnosed as it has no specific symptoms of its own[22,23] In our study only 7 cases were diagnosed. The clinicopthological correlation between preoperative and histopathological examination was more than

90% especially in benign conditions in Dr Vandana study.[24]

Hysterectomy is one of the most frequently performed major surgical procedures in women worldwide.[25] There is high incidence of benign conditions in our study .Strong clinicopathological correlation has been found in the cases. Seventy four cases were correlated clinically with histopathological diagnosis. The result of the study is in concordance with the previously published data as regards to the commonest pathologies identified in hysterectomies and the commonest surgical route for hysterectomy.

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