Original Article

Abdominal Hysterectomy: Still A Common Procedure

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Abstract

Objectives: To determine the common indications of hysterectomies, correlation of clinical diagnosis with histopathology report, morbidity and mortality, frequency of oopherectomy associated with it, stay in hospital and to determine frequency of immediate and long term complications of hysterectomies.

Study Design: Prospective chart review.

Duration and setting: The duration of the study was six months from January 2008 to June 2008, at a tertiary care private hospital in Islamabad.

Methodology: A prospective chart review of 104 consecutive hysterectomies was carried out. Data regarding patient characteristics, process of care and outcomes were collected.

Results: A total of 104 patients had undergone abdominal hysterectomy. Menorrhagia was the most common indication for hysterectomy. A significant co-relation was established between the indications for hysterectomy and the histopathology (p value < 0.05). Only 7% of patients suffered from intra-operative complications, no mortality was observed. A significant association was seen between postoperative complications and duration of hospital stay (p= 0.035).

Conclusion: Menorrhagia was the most common indication of hysterectomy, only 2% patients suffered from significant morbidity.

Keywords: Abdominal hysterectomy, Histopathology report, Mortality and morbidity, Oophorectomy.

Introduction

Hysterectomy is currently the most common major elective procedure in the world, with more than 70,000 hysterectomies performed annually in England alone[1] and even higher proportions in USA. The life time risk of a woman undergoing hysterectomies varies from country to country from less

than 20% to more than 40%, which is more due to medical practices than differences in pathology or between countries.[2,3] The rates of hysterectomies have decreased considerably in England and USA over a decade, owing to increasing advancements in medical treatment as an alternative to surgical treatment.[4] Abdominal hysterectomies have been documented as most frequent procedure in Singapore and Hong Kong as well, but literature review has shown a lack of local studies examining the indications for and the morbidity associated with abdominal hysterectomy.[5,6] There is also lack of substantial data regarding this procedure in other third world countries. There have been no recent population based studies in Pakistan providing estimates of hysterectomy prevalence, although there has always been concern about high rates of this procedure. The subject is one of considerable health importance because a large proportion of female population is undergoing this procedure and are affected by related morbidity, mortality, psychological and financial strain.[7] In England 20% of women have had this procedure by the age of 60 years, about 40 % of these for Abnormal uterine bleeding (AUB) with no gynecological pathology.[8] In response to the consistent demand of this procedure recent reports have identified hysterectomy as a key health care indicator used to measure and compare hospital performance. In particular, the Ontario Hospital Association has identified the ratio of vaginal hysterectomy (VH) to abdominal hysterectomy (AH) as a measure of hospital performance,[9] with a more favorable grade awarded to those hospitals with a higher proportions of VHs. In addition, length of stay (LOS) and complication rates associated with hysterectomy are also used to grade hospital performance.[9] Recent audits of gynecological hysterectomies done in Pakistan have demonstrated a need to increase the ratio of vaginal hysterectomies.[10] Furthermore ,studies have also identified a disparity between clinical and histopathological diagnosis especially in cases of adenomas, dysfunctional uterine bleeding and leiomyoma, thereby strengthening the need of accurate clinical assessment of cases and prior conservative means to obtain histopathology which can reduce the number of hysterectomies.[11] Indications for hysterectomies as a treatment for benign uterine conditions have not been well established, owing in part to a lack of data on outcomes of hysterectomy and of alternative medical and surgical treatments for such conditions.[3] The aim of this study was to find out common indications of hysterectomies, correlation of clinical diagnosis with histopathology report, morbidity and mortality, frequency of oopherectomies associated with it, stay in hospital, to determine frequency of immediate and long term complications of hysterectomies.

Methodology

Study proposal was approved by the institution review board and ethical committee. This audit was carried out in a tertiary care hospital over a period of six months. A consultant was in charge of this audit, while a house officer and a medical officer was taking care of the reporting of the audit. Data processing and analysis was done using

SPSS v16.0. For continuous variables (age, BMI, parity, length of hospital stay), mean with +/- SD was used. For categorical variables (complica tions, indications and co-morbidities) frequency is presented. Paired T-test was used for indication, length of stay, histopathology, age, BMI, complications and oopherectomies. One sample T-test was used for age, parity, hospital stay and BMI. Confidence interval of 95% was considered optimal while a P-value of 0 .05 was considered statistically significant.

Results

A total of 104 patients had undergone abdominal hysterectomy (AH). Average age was 46.7 years, mean body mass index (BMI) was 28.88 and the mean duration of hospital stay was 4 days while 5.9% of the patients were nulliparous, 2% of the patients had one child, 66.7%of the patients had number of the children between 2-5 and 25% of the patients had number of the children more than 5. There was no medical comorbidity in 57.7% of the patients, 11.5 % of the patients had diabetes, 10.6% of the patients had hypertension, 2.9% of the patients had anemia and 16.2 % of the patients had more than one medical comorbidities, (Table I).

Normal menstrual cycle was present in 24.8% of the patients, 60% of the patients had menorrhagia, 15.2% of the patients had post menopausal vaginal bleeding. Only less than 5% patients had Hospital stay of more than four days while 94.2% of patients had also undergone opherectomies.

Table I. Medical Comorbidities.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non	60	57.7	58.3	58.3
	Diabetes	12	11.5	11.7	69.9
	Hypertension	11	10.6	10.7	80.6
	more than 1	17	16.3	16.5	97.1
	Anemia	3	2.9	2.9	100.0
	Total	103	99.0	100.0	
Missing	System	1	1.0		
Total		104	100.0		

A total of 39.6 % of the patients had preoperative diagnosis of fibroid uterus, 29.4 % of the patients presented with menorrhagia and malignancy was suspected in 10.3%. Adnexal mass and ovarian cysts constituted 5.7% of the patients each, lower abdominal pain and premalignant lesions were the indications in 2.9% each. Each presenting complaint was further analyzed with histopathology report, (Figure 1).

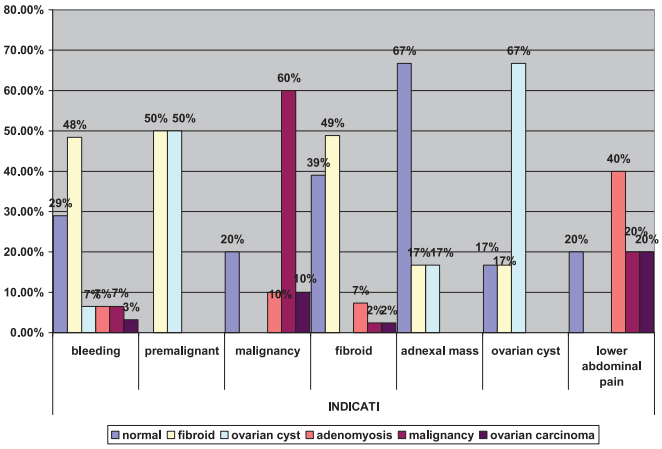

Figure 1. Correlation between clinical presentation and histopathology findings.

A significant co-relation was established between the indications for hysterectomy and the histopathology (p value < 0.05) while BMI and indication of hysterectomy showed no co relation (p= 0.19) (Figure 2)

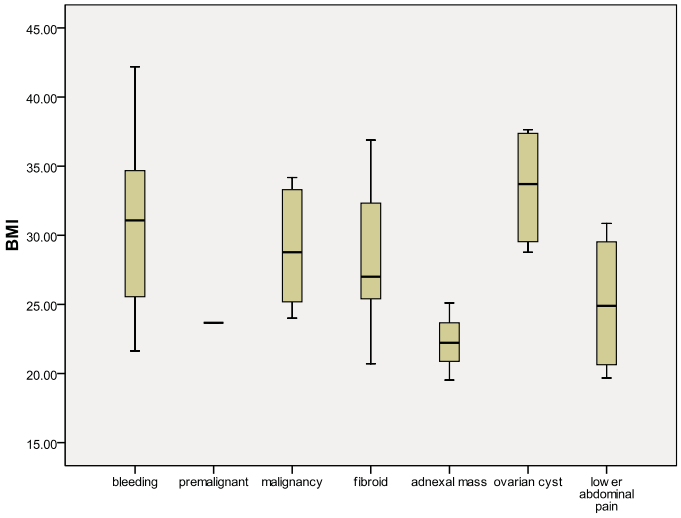

Figure 2. Statistical correlation between clinical presentation and BMI.

No significant correlation was observed between age and the indication as well as between indication and BMI.

There were no intra-operative complication in 93% of the patients, 5 % of the patients experienced hemorrhage, injury to the surrounding viscera was observed in 2 % of patients, only 1% of the patients had anaesthetic complications and 1% of the cases had to be reopened.

Out of the total patients, 82.5% had a hospital stay of 4 days, 10.7% had a stay between 5 to 6 days and 4.9% greater than 7 days. Intra operative complications had no effect on the length of hospital stay but a significant association was seen between postoperative complications and duration of hospital stay (p= 0.035).

Discussion

Although hysterectomy is one of the most frequently performed procedures in women, there is a paucity of local studies in Pakistan where the prevalence of abdominal hysterectomy has been studied. Menorrhagia has been the most frequently cited indication in local as well as international studies, however, with new modalities of treatment now available it is time to review the indications for which hysterectomies are performed.

Like any other surgical procedure, hysterectomy should be performed to save or prolong life, correct defect or malformation and or to relieve suffering.[5] Gambone et al, in 1989 studied the validation for the indications of hysterectomy; they found that adenomyosis had a very low verification rate of approximately 38% and recommended that adenomyosis should no longer be considered a reliable preoperative indication.[12] In a recent analysis done by Bukhari et al, hysterectomy specimens revealed approximately 94% cases of benign pathology and only 4.3% were malignant while 1.6% of the specimens showed no significant pathologic change.[7] In our analysis it was also noted that most of the cases revealed benign pathology, while another significant number of patients had absolutely no abnormal findings on histopathology. As a large and significant number of the specimens were benign, it should be noted that adequate medical management of such patients can be done before undertaking such a radical procedure. Indications for hysterectomies as a treatment for benign uterine conditions have not been well established, owing in part to a lack of data on

outcomes of hysterectomy and of alternative medical and surgical treatments for such conditions.[3] Reid et al reported a decrease in frequency of hysterectomies performed in England by 36%, where menorrhagia is the only indication, owing to active education and promotion of effective medical management in primary care hospitals. This data also suggested that hysterectomy is no longer the usual management for menorrhagia.[4]

The type of complication in hysterectomy procedures are more or less the same in every country and largely dependent on operating surgeon and type of hysterectomy performed. Complication rate, duration of hospitalization and social impact are in favor of vaginal hysterectomy (VH).[13,14] However, most of the cases of vaginal hysterectomies are associated with increased frequency of urinary retention and haematoma formation as compared to abdominal hysterectomies.[15] Mc Phearson et al have reported severe operative complication rate in older age group and in women with greater parity and history of serious illness.[8] In our analysis most of the patients had no complications with smooth recovery. The perioperative complication rate in a study by Leung et al, demonstrated increased incidence as compared to previous audit in the same region probably because of under reporting.[16] This fact leads us to understand the importance of regular audits of hysterectomy both regionally and nationwide, along with a proper tool to document the audit. Minimally invasive procedures have significantly improved patient outcomes but with increased risk of urinary tract injury. Various studies, however, have reported more complication rates with AH and laparoscopic hysterectomy as compared to viginal hysterectomy.[16,17] Other studies have demonstrated that implementation of practicing guidelines have reduced the ratio of AH to VH.[18] Bashir et al reported higher frequency of complication in patients with fibroids than in patients with dysfunctional uterine bleeding.[19]

Not a lot of evidence is present to indicate any relationship between medical co morbidity and the hysterectomy. In the study done by Ikram et al diabetes and hypertension were the most common co existing medical co-morbids.[20] In our study most of the patients did not exhibit any co existing medical morbidity, while amongst those who did, again hypertension followed by diabetes was the most common medical co morbid.

The surgical approach to hysterectomy should be decided after careful discussion with the patient in need of it, in lieu of the benefits versus risk. Further research is required with complete reporting of outcomes, particularly important and relevant long term outcomes, in large randomized controlled trials (RCTs), in order to minimize the reporting bias. There is an increasing need of studies in Pakistan to point out the complication rate, LOS and social impact of abdominal hysterectomies versus VH, which in Europe, Canada and USA are in favor of VH.[13-15] There is also a need of research to define the role of newer approaches to hysterectomy as Total laproscopic hysterectomy (TLH) .[21] It is also worth mentioning that VH as compared to LH have shown shorter operating times, lesser use of oral pain medication and low-

er hospital costs.[16] Bashir et al reported higher frequency of complication in patients with fibroids than in patients with dysfunctional uterine bleeding. With an increasing trend toward the medical management or more conservative approaches to the benign uterine conditions, the indications for hysterectomy in such patients should be revised. Some more local studies have conducted ???? More studies should be done to highlight conservative methods to treat such patients, which can save them a lot of time, finances and psychological as well as social stress.

Conclusion

Menorrhagia was the most common indication of hysterectomy and only 2% patients had suffered from significant morbidity. Extensive studies are required to evaluate the need for AH versus medical treatment and other methods of hysterectomies.

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