

Clinical Audit on Hysterectomy for Year 2011 in Fatima Memorial Hospital Lahore

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Abstract

Background: Hysterectomy is a major gynaecological procedure performed in Pakistan. The aim of this audit was to assess the standard of hysterectomy in Fatima memorial hospital, so as to improve the quality of patient care and outcome.

Methods: This was a clinical audit and included all patients undergoing hysterectomy for benign gynaecological conditions at initial assessment during the period from 1st January 2011 to 31st December 2011 in all three gynae units of Fatima memorial hospital Lahore.

Results: A total of 114 patients were included for analysis: 83.33% having abdominal hysterectomies, 2.63% having laparoscopic hysterectomies and 14.04% undergoing vaginal hysterectomies. Uterine

fibroids constituted the commonest indication for abdominal hysterectomies, while the genital prolapse was the most common indication for vaginal hysterectomy. The overall incidence of complications for vaginal hysterectomy was lower than that for both abdominal hysterectomy and laparoscopic hysterectomy.

Conclusion: Vaginal approach should be considered as first choice for uterus less than 12 weeks size, along with more vigorous training for this approach.

Keywords: Abdominal hysterectomy, Vaginal hysterectomy, Laparoscopic hysterectomy.

Introduction

Hysterectomy is the most common major gynaecological operation performed in the world. Approximately 600,000 hysterectomies are performed annually in the United States and is the second most common frequently performed major gynaecological procedure after caesarean section.¹ An estimated 20 million U.S women have had a hysterectomy.²⁻³ More than 70,000 hysterectomies are performed in England annually.⁴ It is also the most common major gynaecological operation in Pakistan. There are three different approaches: abdominal hysterectomy (AH), vaginal hysterectomy (VH) and laparoscopic hysterectomy (LH). The proportion of patients undergoing the abdominal approach was much higher than that in the United Kingdom⁴ although the overall complication rate (for all approaches) was similar. This audit was initiated to gain a

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better understanding of the practice, indications, and complications of the various types of hysterectomies performed for benign gynecological conditions in Fatima Memorial Hospital.

Methods

The audit was conducted between 1st January 2011 and 31st December 2011. Specially designed audit forms for all patients undergoing hysterectomy were filled. Hysterectomies performed for advanced malignancies were excluded to ensure comprehensive recruitment.

Completeness and accuracy of the data collection was ensured. We carried out random selection of hospital records for verification of data entry. If essential information was missing, such data were requested from the respective surgeon or the patient by telephonic contact.

Pre-operative information including patient demographics, medical history, and nature of any previous abdominal operations, haemoglobin level and indication for hysterectomy was collected. Operative information included: type of hysterectomy, nature of incision, size of uterus, presence of adhesions, performance of prophylactic oophorectomy, blood loss, intra-operative transfusions, operative complications, qualification of the surgeon, and length of hospital stay. The surgeons were classified into: specialists (if they have the fellowship in obstetrics and gynaecology or its equivalent) or trainees (who were undergoing specialist training with or without post graduate qualification such as MCPS). Data pertaining to post-operative complications, transfusions and pathology of the conditions were also collected for analysis.

Statistical analysis was performed using statistical package for social sciences (SPSS software). Data was analysed and presented as frequency and percentages.

Results

A total of 114 forms were returned from all the three units. These patients included 95 (83.3%) having abdominal hysterectomy, 03 (2.63%) having laparoscopic hysterectomy and 16 (14.4%) having vaginal hysterectomy. Information on age was available in all the patients. Mean age of patients undergoing hysterectomy was 44 years. Most patients undergoing abdominal and laparoscopic hysterectomy had no concurrent medical disease while 52% of those having vaginal hysterectomy had co-morbidities (most commonly coded as hypertension and diabetes mellitus).

Table 1 summarizes the indications for different types of hysterectomy. Uterine fibroid was the most common indication for abdominal hysterectomy, whilst among those having vaginal hysterectomy, genital prolapse was the reason in majority cases. Uterine size was significantly larger in those undergoing abdominal hysterectomy as compared to those having vaginal or laparoscopic hysterectomy. The majority of vaginal hysterectomy procedures were performed for patients having a normal or small size uterus.

Concurrent oophorectomy was not performed in those having vaginal hysterectomy as opposed to abdominal hysterectomy. Prophylactic procedure was increasingly under taken with increasing age, for women aged 41 to 45 years having abdominal hysterectomy, 12.9% had the procedure, whereas in women aged 46 years or older, the corresponding figures increased to 55.3% , and by the age of 50 years 92.5% had bilateral oophorectomies, for indicated or prophylactic reasons. In contrast, despite their older ages, prophylactic oophorectomy was uncommonly performed in patients having vaginal hysterectomy.

The overall complication rate, defined as the number of women with one or more categorical complications per 100 women, was significantly higher for

Table 1: Indications of Hysterectomy for Different Types.

Indications	Abdominal Hysterectomy N = 95 (83.33%)	Laparoscopic Hysterectomy N = 3 (2.63%)	Vaginal Hysterectomy N = 16 (14.04%)	Total N = 114 (100%)
Fibroid uterus	53	–	–	53
DUB	42	3	–	45
II UV Prolapse	–	–	10	10
III UV Prolapse	–	–	6	6
	95	3	16	114

Table 2: Intra-operative Complications.

Complications	Abdominal Hysterectomy	Laparoscopic Hysterectomy	Vaginal Hysterectomy	Total
Anaemia (Hb<10 g/dl)	36	1	7	44
Fever	13	1	4	18
Infection	11	–	3	14
Injury to surrounding structures	3	–	1	4

Table 3: Per Operative Blood Loss.

Blood Loss	Abdominal Hysterectomy	Laparoscopic Hysterectomy	Vaginal Hysterectomy	Total
< 500 ml	60	3	11	74
> 500 ml	35	–	5	40

Table 4: Post Op Stay.

Days	Abdominal Hysterectomy	Laparoscopic Hysterectomy	Vaginal Hysterectomy	Total
< 5 days	55	3	13	71
< 10 days	30	–	2	32
< 15 days	6	–	1	7
> 15 days	3	–	–	3

abdominal hysterectomy than that for vaginal hysterectomy. The crude total incidence of complications was lower among patients having vaginal hysterectomy, than those having either abdominal or laparoscopic hysterectomy. Irrespective of the route of hysterectomy, the complication rate was not affected by the size of the uterus.

Discussion

This one year audit exercise covered only those hysterectomies performed in all three gynaecological units of Fatima Memorial Hospital. In this audit the proportion having vaginal hysterectomy was 14.4%; much lower than in the United Kingdom (30%).⁴ The discrepancy between our figure and that from the United Kingdom (VALUE Study 1993-1994) is very high. Infection occurred in 12.3% cases all with abdominal hysterectomy and none with vaginal hysterectomy.

In literature there are multiple studies which indi-

cate that there is a decreased incidence of complications, shorter hospital stay and convalescence, reduced hospital charges, and better quality of life outcomes in those undergoing vaginal hysterectomy.⁵⁻¹¹ In our study also there was decreased incidence of complications in women who underwent vaginal hysterectomy despite higher ratio of having co-morbidities like hypertension, diabetes mellitus etc. However, this could be due to difference in pathology apart from the surgical approach. Most abdominal hysterectomies being performed for fibroids, while genital pro-lapse was the only indication for vaginal hysterectomy. The two conditions are not comparable; the former operation could be more difficult owing to co-existing pathology like endometriosis and pelvic adhesions. To get a better understanding, comparison of the procedures is needed in the presence of similar pathology. Abdominal hysterectomy continues to be the operation favored by most of the gynaecologists.

A study evaluating guidelines for determining the route of hysterectomy showed that implementation of

practice guidelines reduced the ratio of abdominal hysterectomy to vaginal hysterectomy procedures from 3:1 to 1:11.¹² From our data if vaginal hysterectomy was to be performed in patients with a mobile disease free uterus and size equivalent to 12 wks gestation or less, at least another 46 patients could have vaginal hysterectomy.

A systemic review concluded that vaginal hysterectomy should be preferred over abdominal hysterectomy wherever possible; because of significantly better outcome.¹³ Where vaginal hysterectomy is not possible, laparoscopic hysterectomy may avoid the need for abdominal hysterectomy. The benefits of laparoscopic hysterectomy versus abdominal hysterectomy are less intra-operative blood loss and drop in haemoglobin, shorter hospital stays, earlier return to normal activities, fewer wound or abdominal wall infections and less febrile episode, but at a cost of longer operating times and more urinary tract injuries. It is therefore suggested that after discussion with his/her surgeon, the approach to hysterectomy should be decided by the patient herself in light of the above mentioned benefits and hazards.¹⁴

In the VALUE national hysterectomy study 34% of the hysterectomies attributed to non-consultants were supervised. In our audit all of the abdominal and vaginal hysterectomies performed by our trainees were supervised. Antibiotic prophylaxis for hysterectomy has now been extensively studied and is now recommended in national guidelines for all types of hysterectomies.¹⁵ Antibiotic prophylaxis was given to all patients in our study.

Conclusion

The overall incidence of complications was lower after vaginal hysterectomy as compared to abdominal and laparoscopic hysterectomy. Incidence of major visceral damage was similar to those reported in the literature and in international databases.⁶ Level of supervision for the trainee as shown in this audit was high. More training is required to improve uptake of the vaginal approach. Infectious morbidity is still a problem despite the routine antibiotic chemoprophylaxis, irrespective of the type of hysterectomy. We intend to improve proportion of patients receiving DVT prophylaxis, consider vaginal approach as first choice for uterus less than 12 weeks size, along with more vigorous training for this approach.

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