RESEARCH ARTICLE

Comparison of Non-descent Vaginal Hysterectomy vs Total Abdominal Hysterectomy

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Abstract

Aim and objective: The aim of this study was to compare the two types of hysterectomy—abdominal and non-descent vaginal.

Materials and methods: A randomized prospective trial was conducted which included 400 patients. Two hundred in abdominal hysterectomy (group I) and 200 in non-descent vaginal (group II). The two groups were compared for the various intraoperative and postoperative parameters and data were analyzed.

Results: Vaginal hysterectomy had a definite advantage in the postoperative period in terms of shorter hospital stay and early mobility of the patient. The postoperative pain was also less with a statistically significant difference (*p* value 0.0006). Moreover, there were no wound infections in the group II.

Conclusion: Vaginal hysterectomy should be the preferred route of hysterectomy whenever feasible. The surgery is performed through the vagina and has greater patient satisfaction in the postoperative period.

Keywords: AUB, Gynecological, Hysterectomy.

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Introduction

Hysterectomy is a very common surgical procedure. Today, there are many different approaches to hysterectomy. The uterus can be removed via the abdominal route, transvaginally or laparoscopically. Although abdominal hysterectomy continues to be the most common approach worldwide, there is good evidence that vaginal and laparoscopic hysterectomies are associated with fewer complications, a shorter hospital stay, more rapid recovery, and lower overall costs.[1]

Minimally invasive approaches to hysterectomy (vaginal or laparoscopic) should be performed whenever feasible. Vaginal approach is preferred. For an individual patient, the surgeon should account for clinical factors and determine which route will most safely facilitate removal of uterus and optimize patient outcomes, given the clinical situation and surgeon training and experience.[2]

The present study is a comparison of the abdominal hysterectomy and non-descent vaginal hysterectomy. Though non-descent vaginal hysterectomy is a more difficult procedure due to the limited surgical exposure but is rewarding for the patient and the surgeon once the skill of this surgery is acquired.

Materials and Methods

A randomized prospective study of 400 patients was conducted over a period of 2 years in the Department of Obstetrics and Gynaecology, IGMC, Shimla. Out of these, group I (200) underwent total abdominal hysterectomy and the remaining group II (200) underwent non-descent vaginal hysterectomy.

Inclusion Criteria

- Benign pathology.
- Size of uterus <14 weeks.

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Exclusion Criteria

- UV prolapse.
- Malignancy.
- Restricted mobility of the uterus.
- Complex adnexal mass.
- Patients taking treatment for infertility.
- Informed consent of all the patients was obtained.

These patients were compared on various parameters which included operating time, intraoperative blood loss, intraoperative complications, and postoperative events.

All the patients were given inj. ceftriaxone before the start of surgery. The time of surgery was noted form the start of incision to the completion of procedure. Postoperatively, analgesics were given on day 0 of surgery and patients were asked about the pain on day 1 and were given analgesics according to the requirement. The postoperative complications included fever >38°C day 2 onward

Table 1: Demographic profile of the patients

	Group I (n = 200)	*Group II (n = 200)*
Age (mean age)	48 years	44 years
Parity	90% multipara	All multipara
Residence (rural/ urban)	78%/22%	82%/18%

Table 2: Indications for surgery

	Group I (n = 200) (%)	*Group II (n = 200) (%)*
Fibroid	91 (45.5)	76 (38)
Adenomyosis	29 (14.5)	38 (19)
Chronic pelvic pain	24 (12)	17 (8.5)
Abnormal uterine bleeding	56 (28)	69 (34.5)

and wound infection. The mobility of the patients and the day of discharge of both the groups were compared.

Results

Majority of the patients were in the age group of 40 and 50 years. In the study, most of the patients belonged to a rural background as the hospital mainly caters to the rural population of Himachal Pradesh (Table 1). The main benign indications for hysterectomy were fibroid, adenomyosis, chronic pelvic pain, and abnormal uterine bleeding (AUB). Total abdominal hysterectomy was performed for fibroid uterus and AUB in 73.5% patients and non-descent vaginal hysterectomy in 72.5% patients. The above two indications were the most common benign indications for which hysterectomy was performed (Table 2).

The operative time was comparable in both the groups and it mainly depended on the expertise of the surgeon. The intraoperative blood loss was also comparable in both the groups. There was one case of bladder injury in group I and three cases in group II but these were not statistically significant (Table 3).

The main postoperative events were wound infection which was seen in group I mainly (Table 4). Febrile morbidity was comparable in both the groups. The need for analgesia was significantly reduced in group II which was statistically significant with a *p* value of 0.0006. Similarly, the mean hospital stay was reduced and early mobility was seen in more patients in group II.

Non-descent vaginal hysterectomy is certainly a better approach, as it is a surgery transvaginally not giving any visible incision to the patient. The postoperative course is also better, so it should be performed whenever feasible.

Discussion

In the present study, majority of the patients belonged to the age group 40 to 50 years. The Cochrane Systematic Review[3] reported mean age of patients ranging from 38 to 55 years. A study by Mehta et al.[4] also showed majority of patients belonging to the age group of 40 to 49 years.

The most common indications for surgery was fibroid and AUB in the study by Mehta et al.[4] which is similar to the present study. Fibroid was also the most common indication in the study by Chakraborty et al.[5] In non-descent vaginal hysterectomy, larger uteri were removed by bisection or coring. In those with fibroids,

Table 3: Intraoperative observations

	Group I (n = 200)	*Group II (n = 200)*	*p value*
Operating time			
<60 minutes	135 (67.5%)	120 (60%)	0.145
>60 minutes	65 (32.5%)	80 (40%)	
Intraoperative blood loss			
<300 mL	123 (61.5%)	106 (53%)	0.105
>300 mL	77 (38.5%)	94 (47%)	
Bladder injury	1	3	
Ureteric injury	Nil	Nil	
Bowel injury	Nil	Nil	

Table 4: Postoperative events

	Group I (n = 200) (%)	*Group II (n = 200) (%)*	*p value*
Febrile morbitdity	80 (40)	78 (39)	0.9
Wound infection	20 (10)	Nil	
Analgesic requirement	116 (58)	81 (40.5)	0.0006
Mean hospital stay	3.7 days	2.9 days	
Early mobility	98 (49)	135 (67.5)	0.0002

myomectomy was performed during procedure. All these steps were performed after the uterine artery ligation.

The study by Dhivya and Gharpalia[6] showed mean duration of vaginal hysterectomy to be 37.07 minutes compared to 56.4 minutes in abdominal group. However, the present study did not show significant difference in the operating time. Similarly, there was no statistically significant difference in the blood loss in both the groups in the present study. It was, however, seen that Dhivya and Gharpalia[6] reported higher blood loss in abdominal group.

The postoperative pain was less in group II [non-decent vaginal hysterectomy (NDVH)]. This was similar to the observations by Dhivya and Gharpalia[6] and Chakraborty et al.[5] The mean hospital stay was 2.9 days in group II. It was 4.67 days in Dhivya and Gharpalia[6] which is less when compared to abdominal group (10.87 days). Cochrane Systematic Review[3] also reported early return to normal activities in vaginal hysterectomy group.

Ottosen et al.[7] also state that vaginal hysterectomy should be a primary method for uterine removal.

Conclusion

Vaginal hysterectomy should be the preferred mode of surgery whenever feasible. It should certainly be preferred to the abdominal route. It requires more expertise but is a rewarding procedure for the patient and the surgeon. In today's scenario when laparoscopic hysterectomies are replacing the abdominal procedures, vaginal hysterectomy still holds its importance.

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