

Vaginal Hysterectomy For Non-Descent Uterus

Farhana Dewan¹, Laila Arjuman Banu², Anowara Begum³**Abstract**

A prospective study was carried out to determine the short-term morbidity for vaginal hysterectomy done for non-descent uterus. The study was done on the patients scheduled to undergo hysterectomy for benign conditions during the period of January 1996 to December 1999, admitted in a private clinic. The mean age was 41.82 ± 6.39 years and the mean parity 4.12 ± 1.6 . The indications for hysterectomy were Fibroid uterus, DUB and PID. The size of the uterus were found mostly of 8 weeks size. When the size of the uterus was large, it was reduced by enucleation of the fibroid and then the operation completed. Only hysterectomy was done in 114 (95%) cases; hysterectomy with unilateral salpingo-oophorectomy was done in 0.8% and hysterectomy with bilateral salpingo-oophorectomy was done in 4.2% cases. Dissection was difficult in 18.33% cases. The time needed for operation was 37.38 ± 12.83 minutes and the mean hospital stay was 5.32 ± 0.81 days. Vaginal hysterectomy is a less invasive technique with benefits, which include shorter hospital stay and faster convalescence. It should be a primary method for removal of uterus, unless contraindicated.

Introduction

Hysterectomy is a major gynaecological operative procedure commonly indicated for women with dysfunctional bleeding, uterine leiomyoma, prolapse uterus, endometriosis and adenomyoma, pre-malignant conditions and cancer.^{1,2}

The chance of having a hysterectomy by the age of 55 for women in the United Kingdom has been estimated as 1 in 5.³ All large scale surveys of hysterectomy practice have shown that 70-80% of hysterectomies are performed by the abdominal approach. In the management of utero-vaginal prolapse, the vaginal route is normally used, but this indication accounts for only approximately 10% of cases.⁴

About 70% to 80% of hysterectomies are performed by the abdominal approach.^{1,3} As a mean for avoiding the need for laparotomy, laparoscopic hysterectomy^{4,5} was introduced as

an alternative to abdominal hysterectomy. Subsequently studies have shown that laparoscopic hysterectomy and its derivative are associated with advantage that are similar to those of vaginal hysterectomy.⁶ But, the operating time for LAVH is longer and it is more expensive.

Vaginal hysterectomy has been found to be associated with less febrile morbidity, less bleeding necessitating transfusion, shorter hospitalization and faster convalescence than abdominal hysterectomy.⁴ There is evidence for lower morbidity and a quick recovery in patients undergoing vaginal compared with abdominal hysterectomy.⁴

The question then arises as to why it is that relatively few hysterectomies are performed vaginally. Training and experience in vaginal surgery appear to be the major determinants of the type of hysterectomy performed.

The aim of this study is to determine the short-term morbidity for vaginal hysterectomy done for non-descent uterus.

Methodology

One hundred and twenty women scheduled for hysterectomy for benign conditions of uterus were taken into the study.

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Inclusion criteria

DUB, leiomyoma, adenomyosis, PID, no previous history of abdominal operation, no descent of uterus

Exclusion criteria

Malignant condition of uterus and cervix, previously suspected dense adhesion and utero-vaginal prolapse

A preformed questionnaire was made for data collection. Detailed history and thorough clinical examination was done in each case. A written informed consent was taken from each patient. Particular attention was given to operative time, per and post-operative complications, amount of blood loss and hospital stay.

Operative Technique

During vaginal hysterectomy a circular incision is made around the cervix and dissection done. The vesico cervical ligament is cut, vesicocervical space exposed and bladder mobilized.

The pouch of Douglas is exposed next. After this the Mackenrods and utero-sacral ligaments are cut. Then the uterine vessels are cut. After this, the round ligament, fallopian tube and ovarian ligament or infundibulopelvic ligament are cut and sutured.

All the operations were done by a senior gynaecologist.

Patients were followed from time of admission until discharge. Type of anaesthesia was chosen by the anaesthesiologist. In this series all the operations were performed under spinal anaesthesia. The time of operation was calculated from the beginning. The following parameters were recorded.

- Peroperative blood loss
- Number of suture materials needed
- Any difficulties during dissection
- Post operative complications

All patients had at least one dose of prophylactic antibiotic, per-operatively i.e. Inj. Amoxicillin 500

mg; Inj. Metronidazole 500 mg and Inj. Gentamycin 80 mg I.V stat was given.

During postoperative period, fever, pervaginal bleeding, urinary tract infection (UTI), haematuria, wound infection, wound dehiscence and length of hospital stay were ascertained. Statistical analysis was done by SPSS program.

Results

The mean age was 41.82 ± 6.39 years and the mean parity was 4.12 ± 1.60 (Table-1). Most of the cases were done for DUB or Fibroid uterus (Table-II).

	Mean±SD
Age (years)	41.82±6.39
Parity	4.12±1.60

Table-I: Patient characteristic (n=120)

Indication	Number (n=120)	Percentage
Fibroid uterus	40	33.33
DUB	50	41.66
PID	30	25.00

Table-II: Indication for hysterectomy

Regarding size of uterus, in some cases of large uterus, size of uterus was reduced by enucleation of the fibroid and then the operation completed. While selecting patients for vaginal route, freely mobile uteri were selected so that dissection and removal of uterus was easier (Table-III).

Size of uterus	Number	Percentage
6 wks.	34	28.33
8 wks.	70	58.33
10 wks.	5	4.16
12 wks.	6	5.0
14wks.	5	4.16
Condition of fornix		
Free	115	90.83
Thickened	4	3.33
Fixed/adnexal mass	1	0.8

Table-III: Size of uterus (n=120)

Only hysterectomy was done in 95% of cases; hysterectomy with unilateral salpingo-oophorectomy in 0.8% cases and hysterectomy

with bilateral salpingo-oophorectomy was performed in 4.2% cases (Table-IV).

Type of operation	Number	Percentage
Hysterectomy	114	95.0
Hysterectomy with unilateral salpingo-oophorectomy	1	0.8
Hysterectomy with bilateral salpingo-oophorectomy	5	4.2

Table-IV: Type of Operation (n=120)

The dissection was difficult in 18.33 cases. Bringing out uterus was also difficult in 19 (15.83%) cases in the same route. The time needed for operation was 37.38±12.83 minutes (Table-V).

Dissection	Number	Percentage
Easy	98	81.66
Difficult	22	18.33
Bringing out uterus		
Easy	101	84.17
Difficult	19	15.83
Time needed for operation		
Time (min) (Mean±SD)	37.38±12.83	

Table-V : Per operative course (n=120)

The requirement of post operative analgesic for 1st 24 hours was minimum in this series as little pain was experienced by the patient since there was not abdominal wound. The mean hospital stay was 5.32±0.8 days (Table-VI).

Table	Mean ±SD
Length of hospital stay	5.32±0.81
Cost of operation (Tk.)	1,126.33±155.51

Table-VI. Hospital stay (n=120)

The patients were fit to be discharged earlier but as it was a new approach, we wanted to keep the patients for close observation.

Discussion

The aim of this study was to determine the short term morbidity of patients undergoing vaginal hysterectomy for nondescent uterus. The unfavourable characteristic for vaginal surgery was lack of utero vaginal prolapse

sufficient to require vaginal repair, enlarged uterus upto the size of 12 weeks gestation and a need for oophorectomy.

Dorsey JW et al⁹ reported that no patient with uterus more than 12 weeks underwent vaginal hysterectomy but 30.6% with uterus more than 12 weeks were operated by laparoscopic assisted vaginal hysterectomy (LAVH).

The indications for hysterectomy in this study were fibroid uterus, DUB and PID. Similar indication for hysterectomy has been reported by others.^{7,8}

In the present series, in some cases uteri of 14 weeks gestation size was done through this route but prior reduction of size was done by enucleating the fibroid.

As larger size of the uterus has been found to be a major hindrance to the approach through the vaginal route^{7,8,9,10}, different authors have described various techniques to reduce the size of the uterus prior to remove through the vagina. Adam Magos et al¹¹ selected women with fibroid uterus between 14-20 weeks of gestational size of uterus and described bisection, myomectomy, morcellation and coring to reduce the uterine size. Vaginal uterine morcellation is the key to a successful operation and obviates the need for either abdominal or laparoscopically assisted hysterectomy solely to deal with moderate uterine enlargement.^{12,13}

A comparative study performing vaginal hysterectomy with or without morcellation provides that morcellation is safe and facilitates the vaginal removal of moderately enlarged uterus without increasing perioperative morbidity.¹⁴ Morcellation was done in 11 cases the present series.

It is now proved that LAVH is preferred to abdominal hysterectomy, but involves knowledge of laparoscopic surgery as well as vaginal hysterectomy. There is sufficient evidence to suggest that if vaginal hysterectomy can be done it is preferred to LAVH.¹⁵

The technique of vaginal oophorectomy at vaginal hysterectomy is a safe procedure for the

experienced surgeons, the favourable factors being slim patient adequate vaginal space, pliable soft tissue multiparity, uterine descent and accessory ovaries free from pathology.^{16,18} The visibility and accessibility provided by vaginal hysterectomy make it possible to grade the position of the ovaries accurately and to determine whether this can be removed transvaginally. Good surgical practice dictates that visibility and accessibility is the primary criteria for selecting the route of oophorectomy. It has been demonstrated that the ovaries are visible and accessible to transvaginal removal in most patients.^{17,19}

The requirement of post operative analgesic was less. The pain experienced by the patients were also less. Similar results have been reported by others.^{7,8,16}

The hospital stay has been found to be 5.32 ± 0.81 days. As the patient is more comfortable after operation through the vaginal route it was possible to discharge them from the hospital earlier. The length of hospital stay reported by Dorsey JH et al⁹ was 3.5 and 4.4 days for total vaginal hysterectomy and total abdominal hysterectomy respectively. In this series the hospital stay was 5.32 ± 0.81 days. A shorter hospital stay after vaginal hysterectomy has also been reported by others.^{7,13,14,16}

The cost of the operation was significantly lower for vaginal hysterectomy. Reduction in postoperative analgesic required, shorter hospital stay are the factors for the reduced cost. A cost of analysis for abdominal hysterectomy, LAVH and vaginal hysterectomy by Ransom, SB¹⁸ has revealed that vaginal hysterectomy was significantly more cost effective for permanent management of primary menorrhagia than LAVH and total abdominal hysterectomy. In the present study, the operation was found to be cheap as less suture material was required i.e. two or three chromic 1 catgut and one chromic 1 zero catgut. The total expenditure was about Tk.1,126.33 \pm 155.51 (Table-VI). Cost effectiveness of the vaginal

route has also been described by Anthony Davies et al⁷.

Conclusion

Vaginal hysterectomy is a less invasive technique with benefits which include shorter hospital stay and faster convalescence. It is the surgical method of choice for benign conditions of uterus. As there are obvious advantages of hysterectomy performed vaginally, there would be major impact on the vaginal hysterectomy rate if gynaecologists were trained to carry out vaginal surgery by this route. Better training in vaginal techniques would most likely change the current preference for abdominal surgery and lead gynaecologists to consider the vaginal approach as the standard route of surgery. Vaginal hysterectomy should be a primary method for removal of uterus, if not contraindicated.

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