

Original Article

Safety and Feasibility of Non-descent Vaginal Hysterectomy in Faridpur Medical College Hospital

L Naher¹, N Rosy², BN Roy³, S Khanam⁴, Z Parvin⁵

Abstract:

This Study was done to assess safety and feasibility of non-descent vaginal hysterectomy for benign gynecological disease. A prospective observational study was conducted over a sample size of 50 patients at the department of Obstetrics and Gynecology of Faridpur Medical College Hospital from 1st January 2017 to 31st December 2017. All patients requiring hysterectomy for benign gynecological disorders who did not have any uterine descent were recruited for this study. Non-descent vaginal hysterectomy was performed in cases where uterus was mobile with size not exceeding 16 weeks gestation and with adequate vaginal access. Morcellation techniques like bisection, myomectomy, wedge debulking or combinations of these were employed in bigger sized uterus. A total of 50 cases were selected for non-descent vaginal hysterectomy. Among these, 47 cases successfully underwent non-descent vaginal hysterectomy. Majority (44%) of the patients were in age group of 41-45 years. All patients were parous. Uterine size was <10 wks in 30 cases and >10 wks in 20 cases. Commonest indication was leiomyoma of uterus (46%). Mean duration of surgery was two hours. Mean blood loss was 200 ml. Reasons for failure to perform non-descent vaginal hysterectomy was difficulty in opening pouch of douglus in two cases because of adhesions and in one case there was difficulty in reaching the fundal myoma which prevented the uterine descent. The most common complication was post-operative pain in 22% of cases. Febrile morbidity was present in 4% of cases. Blood transfusion was required in 7 cases. Average duration of hospital stay was three days. Vaginal hysterectomy for benign gynecological causes other than prolapse safe, feasible and patient friendly.

Key words: Feasibility, Safety, Non-descent Vaginal Hysterectomy.

Introduction:

Hysterectomy is the commonest major surgical procedure performed in gynecology. Traditionally various routes for removal of uterus have been used. Abdominal hysterectomy is undoubtedly the most popular with a 70:30 ratio for abdominal versus vaginal route¹⁻³. Since introduction of laparoscopy in 1990, the method of hysterectomy has been a subject of debate due to great interest of minimally invasive surgery. Vaginal route of hysterectomy is associated with fewer morbidities, lesser hospital stay and better

patient satisfaction. Therefore, there is a need for expanding the indication for vaginal hysterectomy rather than restricting it to the conventional indication of uterovaginal prolapse. The common limitations for vaginal hysterectomy in non-prolapsed uterus includes size of the uterus, nulliparity, previous pelvic surgery or lower segment caesarean section (LSCS), pelvic adhesions and endometriosis⁴. The proponents of laparoscopic assisted vaginal hysterectomy (LAVH) claim to overcome these limitations and convert a potential abdominal hysterectomy to a vaginal one. However LAVH is associated with higher costs, longer duration of surgery, specially trained personnel and risks related to laparoscopy⁵. On the other hand, vaginal hysterectomy is associated with reduced morbidity and lower health care costs compared to laparoscopic techniques⁶. With increasing concern for limiting health care costs, there is a need for reviewing the accepted limitations of vaginal hysterectomy and the feasibility of performing it in the non-laparoscopic method. The objective of this study was to assess the possibility of the vaginal route as the primary route for all hysterectomies for benign conditions, in the absence of uterine prolapse. The clinical short term outcome of surgery was evaluated when performed by many surgeons.

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Materials & Methods:

This hospital based study was conducted in the department of Obstetrics and Gynecology of Faridpur Medical College Hospital during 1st January 2017 to 31st December 2017. A total of 50 patients admitted to gynaecological ward requiring hysterectomy for benign diseases in the absence of uterine prolapse without suspected adnexal pathology were taken for study. Prerequisites for non-descent vaginal hysterectomy (NDVH) were set as uterine size not exceeding 16 weeks of gravid uterus (by clinical judgment) and adequate vaginal access with good uterine mobility. Patients with uterus of restricted mobility, suspicion of malignancy and complex adnexal masses were excluded from the study. Special consent for conversion to abdominal hysterectomy if needed was taken. All cases were reassessed in operating theater after the patient was anesthetized, to confirm the size, mobility of uterus, vaginal accessibility, and laxity of pelvic muscles. Vaginal hysterectomy was considered successful if it was not abandoned or converted to abdominal route. In bigger size uterus morcellation techniques like bisection, debulking, myomectomy or combinations of these were performed as required. Data regarding age, parity, uterine size, estimated blood loss, length of operation, complications and hospital stay were recorded. All patients received prophylactic antibiotics. Post operative Foley catheter was kept in all cases for 24 hours. All patients were followed from time of admission to time of discharge and 2 weeks thereafter.

Results:

Among 50 patients 47 patients successfully underwent non-descent vaginal hysterectomy, whereas three cases had to be completed by abdominal route due to various reasons. Majority of the patients belonged to age group 41-45 years (Table I). Mean age in vaginal hysterectomy is 44.5 years.

Table I: Distribution of patients according to age (n=50).

Age Group (Years)	No. of patients (%)
35-40	13 (26)
41-45	22 (44)
46-50	7 (14)
>50	8 (16)

Majority of patients were para 2 and above. Parity wise distribution of patients is given in Table II.

Table II: Distribution of patients according to parity (n=50).

Parity	No. of patients (%)
1	3 (6)
2	25 (50)
3	10 (20)
4	12 (24)
Total=	50 (100)

The commonest indication for hysterectomy was fibroid uterus 23 (46%). Other indications were DUB, Adenomyosis and Cervical polyp (Table III).

Table III: Distribution of patients according to indication of surgery (n=50).

Indications	No. of Patients (%)
Fibroid uterus	23 (46)
DUB	13 (26)
Adenomyosis	12 (24)
Cervical polyp	2 (4)
Total	50 (100)

Majority (42) of the patients had uterine size less 12 weeks. Eight patients had uterine size between 13-16 weeks (Table IV).

Table IV: Distribution of patients according to uterine size.

Size of the uterus	No. of the patients (%)
Normal to 6 wks	15 (30)
>6-10 wks	15 (30)
>10-12wks	12 (24)
>12-16wks	8 (16)

Different morcellation techniques like bisection, decoring, myomectomy and debulking techniques were used during the surgery to bigger sized uterus. Volume reduction techniques were mostly required for uterine size 12 weeks and above. In the present study the mean operating time was 2 hours. Mean blood loss was 200 ml. Blood transfusion was needed in 7 patients. Mean hospital stay was 3 days. Post operative fever was seen in 2 patients, UTI in 4 patients and post operative pain in 11 patients.

Per operative and post operative complication are described in Table V.

Table V: Intra-operative and post operative complications.

Complication	No. of the patients (%)
Conversion to TAH	3 (6)
Blood transfusion	7 (14)
Post operative fever	2 (4)
Urinary tract infection	4 (8)
Post operative pain	11 (22)

Discussion:

It is a well known fact that 70-80% of hysterectomies are performed by abdominal route and vaginal approach is usually reserved for uterovaginal prolapse⁷. The factors that may influence the route of hysterectomy for any surgical indication include uterine size, mobility, accessibility and pathology confined to the uterus (no adnexal pathology or known or suspected adhesions)⁸. In the present study out of 50 cases selected for non-descent vaginal hysterectomy, 47 cases were completed successfully, whereas three cases were converted to abdominal hysterectomy due to various reasons. Majority of the patients were in the age group of 41-45 years. Similar age prevalence was noted in other case series reviews⁹⁻¹². Similarly most of the patients were parous comparable to other studies^{3,9-11,13}. Lax tissues following multiple deliveries and decreased tissue tensile strength provide comfort to vaginal surgeon even in the presence of the uterine enlargement. A major factor in determining route of hysterectomy is transvaginal accessibility of the uterus. Inadequate accessibility sustaining from a narrowed vagina at the vaginal apex makes vaginal hysterectomy technically challenging and may contra indicate vaginal hysterectomy, especially by surgeons of less experienced in this procedure. If the vagina allows access to divide the uterosacral and cardinal ligaments, uterine mobility usually is improved enough to allow vaginal hysterectomy in these cases¹⁴. Determining whether the pathology is confined to or extends beyond the uterus is critical to select the most appropriate route of hysterectomy. The presence of severe endometriosis, adnexal pathology and adhesions because of previous pelvic surgeries contraindicate vaginal hysterectomy¹⁵.

The commonest indication was Fibroid uterus (46%). Leiomyoma of uterus remained commonest indication in other case series^{9,10,12}. In our study no single case had earlier undergone abdominal pelvic surgery. Mean blood loss was 200 ml and amount of loss depended on uterine size and duration of surgery. It was lesser than that reported in other studies like 168 ml³, 290 ml⁹, 316 ml¹⁰. But it was more as compared to some other studies as 100 ml¹¹ and 35.56 ml¹². Seven (14%) patients required blood transfusion. Mean duration of surgery was 2 hours as compared to Goel et al (64 minutes)³, Dewan et al (54.5 minutes)⁹, Bharatnur et al (65 minutes)¹⁰ and Bhadra (55 minutes)¹¹. The operation time was definitely more in the earlier phase of the learning curve. It was also dependent on the size of uterus. Same was noted by Seth in his personal series of 5655 cases¹². In present study on analyzing the failed cases, there was difficulty in opening pouch of Douglas due to adhesions in two cases. On opening abdomen there was puckering and obliteration of pouch of Douglas because of endometriosis. In one

case there was difficulty in reaching the myoma and transverse diameter being larger so as to prevent descent. Similar reasons were cited by Goel³ in their analysis of 75 cases. Hence dimension of uterus in both anterior-posterior and transverse direction should be taken into account. Debulking was done in all cases. Among all the debulking surgeries bisecting the uterus remained the first and foremost technique³. There were no major complications. Complications were minimal which included post operative pain and fever. Mean hospital stay was 3 days.

Conclusion:

Vaginal hysterectomy is safe, feasible and patient friendly in most of the women requiring hysterectomy for benign conditions in hands of trained vaginal surgeons. Therefore it should be practiced more frequently by gynecologists and should be included in training programs for residents and postgraduate trainees.

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