

## Non-descent Vaginal Hysterectomy: Safety and Feasibility



### Medical Science

**KEYWORDS :** Non descent vaginal hysterectomy(NDVH), abdominal Hysterectomy, morcellation

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### ABSTRACT

*Aims and objectives:*To study the role of non descent vaginal hysterectomy(NDVH) in advancing gynecology practice and to study the safety, feasibility, indications of surgery, age group and parity, postoperative complications, morbidity, mortality and patient compliance.

*Methods:*A hospital based cross sectional descriptive study of 50 cases was conducted at the department of obstetrics and gynecology in a tertiary care level hospital affiliated to medical college, over a period of two years. All patients requiring hysterectomy with benign gynecological disorders of the uterus without descent were taken up for the study, provided the uterus was mobile, its size did not exceed 16 weeks gestational age and there was adequate vaginal access. Vaginal hysterectomy was done in usual manner. Data regarding age, parity, uterine size, estimated blood loss, length of operation, complication and hospital stay were recorded.

*Results:*Among all major gynecological surgeries, 70% surgeries were hysterectomy. A total of 50 cases were selected for non-descent vaginal hysterectomy. Among 50 cases of NDVH 76% patients operated for NDVH alone, rest 12 patients had undergone adjuvant surgical procedures along with total vaginal hysterectomy. DUB(32%) and fibroid(22%) were common indications. Commonest age group was (40-49 years) i.e. 62%. 74% patients were multipara. Majority of the patients had no operative difficulties. Per-operative complications were minimal. Blood transfusions were required only for anemia. Post-operative complications were minimal. Hospital stay was comparatively shorter. Morbidity was low and there was no mortality.

*Conclusion:*Non descent vaginal hysterectomy is the natural, safe and feasible route of hysterectomy. A trained gynecologist can safely perform vaginal hysterectomy in indicated and properly selected patients without genital prolapse. It is safe to do NDVH than abdominal or laparoscopic hysterectomy in medically high risk patients and where there is lack of endoscopy facility, trained medical, paramedical staff, skilled anesthetic staff, and lack of postoperative monitoring and it is also cost effective. For successful outcome size of uterus, size in all dimensions and location of fibroid should be taken into consideration. Today in the era of minimally invasive surgery, non-descent vaginal hysterectomy needs to be considered and seems to be a safe option.

### Introduction:

Hysterectomy is the most common major gynecological surgical procedure. It can be done by abdominal or vaginal route and with the help of laparoscopy [1]. Laparoscopic assisted vaginal hysterectomy (LAVH) and total laparoscopic hysterectomy (TLH) although gaining more popularity now a days, is associated with higher cost, longer duration of operation, and needs general anesthesia [2]. On the other hand vaginal hysterectomy is associated with reduced morbidity and lower health care cost compared to laparoscopic technique [3]. It is exclusively done under spinal anesthesia and also preferred in high risk cases like obesity and it is also a cosmetic surgery (scar less operation) [4]. In the recent decade increase expertise has been achieved by gynecologists and better compliance by patients. In older days, the vaginal hysterectomy was limited only for the prolapsed uterus but because of improved obstetric practice there is reduced incidence and severity of the genital prolapse. So it is now time for the gynecologist to master the vaginal route for the removal of non-descended uterus as hysterectomy can be brought to the level of relatively safe and simple operation [5] [6]. The recent advances and innovation of surgery led the surgeons to learn vaginal hysterectomy irrespective of non-descent uterus. One of the most dramatic changes in the route of removal of uterus during the past few years is switching over from abdominal to vaginal route [7]. Today gynecologists are becoming vaginal surgeons, they have started to believe that every uterus can be and should be removed vaginally unless the route is contraindicated [8]. Vaginal hysterectomy in larger sized uterus is facilitated by bisection, myomectomy, debulking, morcellation, coring and clampless approach [9]. Vaginal hysterectomy has been found to be associated with less febrile morbidity, less bleeding necessitating transfusion, shorter hospitalization and faster convalescence than abdominal hysterectomy [10]. There is evidence for lower morbidity and a quick recovery in patients undergoing vaginal compared with abdominal hysterectomy.

Now, we know that abdominal exploration is always comparatively a major surgery than the vaginal exploration and the significant complications like paralytic ileus, incisional hernia, infection etc. are significantly less with vaginal route. Present day gynecolo-

gist has rightly selected the vaginal route for the hysterectomy in properly selected patients. The study also opens up a chapter that vaginal hysterectomy with its present day popularity must be included in the practical surgical training programme of every post graduate student to keep them up to date with the needs of this era. Other major advantage is scar less procedure which is always preferred by the cosmetic minded advanced women. Total Laparoscopic hysterectomy (TLH) requires highly skilled surgeon, special endoscopic equipment, trained medical and paramedical staff, skilled anesthetist, long duration of operation and high cost. But recent era with assistance of laparoscope, indications of vaginal hysterectomy is extended. The skill and experience of the surgeon plays a pivotal role in determining the approach route. Vaginal route will be used more and more for removing the uteri, because it gives a natural route, smoother, scar less, safer operative results than abdominal route.

Now the question that arises is why relatively few hysterectomies are performed vaginally till today, because 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. Another aim of this present study is to report the personal experience in performing non descent vaginal hysterectomy (NDVH) for benign gynecological indications and to explore different surgical techniques that make vaginal hysterectomy simpler and easier to perform.

### Material and methods:

A hospital based retrospective study of 50 cases was conducted at the department of obstetrics and gynecology in a tertiary care level hospital affiliated to medical college, over a period of two years. All these patients were admitted in gynecology department after general examination, per abdominal examination for any previous surgery, local examination of vulval part, per speculum and per vaginal examination for size and position of uterus, degree of descent, mobility of uterus, associated with cystocele, rectocele, decubitus ulcer, roomy vagina. The patients were thoroughly in-

investigated by routine investigation e.g. CBC, RFT, LFT, BL.GP, PAP test, chest x-ray, ECG in wards for their fitness for surgery and other diseases if associated. A good bowel preparation would help gain exposure and avoid bowel injury. After all these preparations, majority of patients were operated under spinal anesthesia. All the patients were observed postoperatively for development of complications like urinary tract infection, primary or secondary hemorrhage, vault sepsis, urinary tract fistula, respiratory tract infection, headache, backache etc. Injectable cefotaxime (1gm iv b.d.) was used as a routine antibiotic. In few cases broad spectrum antibiotics were used when indicated. The special attention was given to age, incidence, parity, symptoms, menstrual disturbances, diagnosis of disease, and indication of surgery with operative findings, postoperative management and late followup. All the patients were called for personal followup and were examined thoroughly keeping in mind the symptoms, local wound healing, any other late sequel like dyspareunia, secondary hemorrhage etc.

### Observation & Results:

**Table 1. Distribution according to age group**

| No. | Age in years | No. of patients | Percentage |
|-----|--------------|-----------------|------------|
| 1   | 10 – 19      | 2               | 4%         |
| 2   | 20 – 29      | 1               | 2%         |
| 3   | 30 – 39      | 12              | 24%        |
| 4   | 40 – 49      | 31              | 62%        |
| 5   | 50 – 59      | 4               | 8%         |
| 6   | Above 60     | nil             | -          |

Above table shows that most common age group affected was 40-49 years (62%), second most common 30-39 years (24%) and only 4 patients were between 50-59 years. In two patients, below the age of 19 years, vaginal hysterectomy was done for mental retardation on psychological grounds.

**Table 2. Distribution according to indication**

| No. | Indications             | No. of cases | Percentage |
|-----|-------------------------|--------------|------------|
| 1   | DUB                     | 16           | 32%        |
| 2   | Fibroid                 | 11           | 22%        |
| 3   | Adenomyosis             | 9            | 18%        |
| 4   | Endometrial hyperplasia | 2            | 4%         |
| 5   | Cervical dysplasia      | 4            | 8%         |
| 6   | Mentally retarded       | 2            | 4%         |
| 7   | Feeling of descent      | 4            | 8%         |
| 8   | Others (PID)            | 2            | 4%         |

In our study, among 50 cases of NDVH, most common indication was dysfunctional uterine bleeding (32%) not responded with medical treatment, second most common fibroid (22%) and third most common indication was adenomyosis (18%) of uterus.

**Table 3: Distribution according to parity**

| No. | Parity          | No. of cases | Percentage |
|-----|-----------------|--------------|------------|
| 1   | Nulliparous     | 4            | 8%         |
| 2   | Multipara       | 37           | 74%        |
| 3   | Grand Multipara | 9            | 18%        |

Above table shows that 74% patients who have undergone NDVH were multipara, favorable factor for vaginal route of surgery, who had parity between 2-4, who had satisfactorily completed their family. Uterus was removed for pathological condition and not for family planning.

**Table 4: Incidence of adjuvant procedures**

| No. | Operation                                 | No. of cases | Percentage |
|-----|---|--------------|------------|
| 1   | Total vaginal hysterectomy                | 38           | 76%        |
| 2   | VH+ Anterior and posterior perineorrhaphy | 5            | 10%        |
| 3   | VH+ salpingectomy                         | 1            | 2%         |
| 4   | VH+ adnexal mass removal                  | 1            | 2%         |
| 5   | VH+ salpingo- oophorectomy                | 1            | 2%         |
| 6   | VH+ Anterior perineoraphy                 | 1            | 2%         |
| 7   | VH+ Posterior Perineoraphy                | 1            | 2%         |
| 8   | VH+ Oophorectomy                          | 1            | 2%         |

In our study 76% patients undergone only NDVH, other 12 patients had undergone adjuvant surgical procedures along with total vaginal hysterectomy. This suggests that adnexal pathology can be dealt vaginally without any complication. In patients with cystocele or rectocele, anterior and posterior colporrhaphy can be done simultaneously.

**Table 5: Distribution of postoperative complications**

| No. | Complication                         | No. of cases |
|-----|--------------------------------------|--------------|
| 1   | Visceral injuries                    | -            |
|     | Rectum opened                        | 1            |
|     | Bladder opened                       | 1            |
|     | Ureter                               | -            |
|     | Bowel                                | -            |
| 2   | Hemorrhage                           | 4            |
| 3   | Difficulties in removal of fibroid   | 4            |
| 4   | Slipping of pedicle                  | 1            |
| 5   | Failed VH (conversion to laparotomy) | -            |

Above table shows post-operative complications. Rectum (one case) and bladder (one case) was accidentally opened, which was sutured in appropriate manner, patient recovery was good, though hospital stay was prolonged. In 4 cases per operative hemorrhage was seen, the reasons seen were bleeding from posterior vaginal wall, slipping of ascending uterine artery, no infiltration used or prolonged surgery. In 4 cases it was difficult to remove the uterus due to fundal adhesions and big fibroid (uterus size 14 – 16 weeks). All these cases were successfully tackled by morcellation. Overall less morbidity was noted and no mortality.

### Discussion:

Our study shows that among all major gynecological surgeries, 70% patients were operated for hysterectomy. The study included 50 patients operated for non descent vaginal hysterectomy. Some adjuvant surgical procedures can also be performed with NDVH. Most common age group underwent for non descent vaginal hysterectomy was 40 -49 years (62%), mostly multipara (74%) patients who had completed their family. First most common indication was dysfunctional uterine bleeding (32%) and second most common indication was fibroid (22%). We had 10% morbidity and no mortality. Still believe that it can be further reduced by aseptic and antiseptic precautions and proper ligation of pedicles. Jeffcoate has rightly observed that thromboembolic phenomena are remarkable by its absence in vaginal surgery. NDVH should not be refused for sexual disturbances later on. Advantages of doing NDVH over abdominal hysterectomy are due to no scar, no adhesions, no hernia, no wound gap, associated urogynec procedures can also be performed, less operative time, less blood loss, less anesthetic complications, largely extraperitoneal dissection to prevent injury to bowel, bladder and ureter, minimal bowel handling -no paralytic ileus, shorter hospital stay, fast recovery, low cost, less thromboembolic phenomena, less mortality and morbidity, natural, simple route for drainage. Urinary tract injury is also less common in non-descent vaginal hysterectomy than other routes. Nowadays Fibroid upto 16 week size and adnexal pathology can be also removed by vaginally. For moderate to large sized uteri with benign conditions, techniques like bisecting, coring, and morcellation-5 may be adopted in an attempt to reduce the uterine volume prior to removal. In high risk patients NDVH is a preferred method for removal of uterus. A trained gynecologist can safely perform vaginal hysterectomy in indicated and properly selected patients even without genital prolapse as said by Jeffcoate. This route is more acceptable to the patients. We therefore suggested that modern gynecologists cannot afford to be ignorant about its technique as this may become the popular natural route of surgery of tomorrow. Thus it can be concluded that non descent vaginal hysterectomy is feasible, safe and provide natural route of surgery in advancing gynecological surgeries.

**Conclusion:**

Vaginal hysterectomy is a less invasive technique with benefit of faster convalescence and shorter hospital stay. It is the surgical method of choice for benign conditions of uterus. Vaginal hysterectomy should be a primary method for removal of uterus, if not contraindicated. It is safe in women with non-descent and moderately enlarged uterus. A combination of morcellation techniques is often needed and the surgeon needs to be familiar with them. With experience, operative time, blood loss and complications can be reduced. This technique should be practiced more frequently and there should be an active effort in residency training programs to teach this.

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