

## Original Article

## Use Of Non Descent Vaginal Hysterectomy In Benign Uterine Pathology

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### Abstract

**Background:** Traditional abdominal and vaginal hysterectomies represent the most and least invasive techniques respectively. The ease and convenience offered by a large abdominal incision have led to the preponderance of abdominal hysterectomy over the vaginal route. In older days, vaginal hysterectomy was limited to only prolapsed uterus. But with improved obstetric practices there is reduced incidence and severity of genital prolapse. Non descent vaginal hysterectomy is the removal of uterus through vagina where there is no descent of the cervix. Hence; we planned the present study to assess various factors associated with the use of non descent vaginal hysterectomy in benign uterine pathology **Material and Method:** The present study included assessment of 25 patients that required vaginal hysterectomy. The selected patients had uterine size of less than 14 weeks. Patients who had positive malignancy, endometriosis, cervix flushed to vaginal, those with large adnexal masses and the ones with uterus having severely restricted mobility were not included in the study. All cases were done under regional anesthesia, either spinal or epidural. Uterus was removed. Uterine bisection, morcellation, debulking and myomectomy were done as and when required. Vaginal hysterectomy was considered successful if it was not converted to abdominal hysterectomy. All the results were compiled and assessed by SPSS software. **Result:** In the present study parity 3 was commonest in non descent uterus group. 25 patients underwent Non descent vaginal hysterectomy (NDVH), out of which 56% of uterus were removed intact due to normal size of the uterus. In some cases special operative techniques were required, in which bivalving was most commonly used technique. **Conclusion:** NDVH was initially restricted to small size uterus, however with techniques like morcellation, bivalving and myomectomy, NDVH can be used for large size uterus and is a safe technique.

**Key Words:** Hysterectomy, Pathology, Uterine

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### INTRODUCTION

**I**NTERESTING: Hysterectomy: The word is derived from the latin word Husteros - Hysteros meaning Uterus. Thus, hysterectomy literally means removal of uterus through sheath (sheath meaning vagina) – Vaginal Hysterectomy.<sup>1</sup> Traditional abdominal and vaginal hysterectomies represent the most and least invasive techniques respectively. The ease and convenience offered by a large abdominal incision have led to the preponderance of abdominal hysterectomy over the vaginal route. Laparoscopic route is associated with increased operating times and rise in the rate of intraoperative injuries.<sup>2</sup> In older days, vaginal hysterectomy was limited to

only prolapsed uterus. But with improved obstetric practices there is reduced incidence and severity of genital prolapse. Non descent vaginal hysterectomy is the removal of uterus through vagina where there is no descent of the cervix. For some time in history, such a surgical procedure was considered unacceptable.<sup>3</sup> As the awareness of simplicity and benefits involved with the vaginal route, that the vagina is the ideal and most natural route to approach the uterus along with the availability of good anesthesia, light, better suture material, electro-surgical techniques, exploration of the uterus through the vaginal route has become more popular.<sup>4</sup> Hence; we planned the present

study to assess various factors associated with the use of non descent vaginal hysterectomy in benign uterine pathology

### MATERIALS & METHODS

The present study was conducted in the department of gynaecology of the medical institute and included assessment of 25 patients that required vaginal hysterectomy. Ethical approval was taken from the institutional ethical committee and written consent was obtained after explaining in detail the entire research protocol. The selected patients had uterine size of less than 14 weeks. Patients who had positive malignancy, endometriosis, cervix flushed to vaginal, those with large adnexal masses and the ones with uterus having severely restricted mobility were not included in the study. All cases were done under regional anesthesia, either spinal or epidural. After cleaning and draping, cervix was held with vulsellum. Saline infiltration was done. Circumferential incision was taken around the cervix, pubo-vesico-cervical ligament was cut and bladder pushed up. Both anterior and posterior pouches were opened. Uterosacral and cardinal ligaments were clamped, cut and ligated. Uterus was removed. Uterine bisection, morcellation, debulking and myomectomy were done as and when required. Vaginal hysterectomy was considered successful if it was not converted to abdominal hysterectomy. All the results were compiled and assessed by SPSS software. Univariate regression curve were used for the evaluation of the results.

### RESULTS

Maximum number of patients in non-prolapse uterus group was between 40 to 50 years. In the present study parity 3 was commonest in non descent uterus group. The most common indication of non descent vaginal hysterectomy in our study was dysfunctional uterine bleeding. Previous surgery is no longer a contraindication for vaginal surgery. In present study, 25 patients underwent Non descent vaginal hysterectomy (NDVH), out of which 56% of uterus were removed intact due to normal size of the uterus. In some cases special operative techniques were required, in which bivalving was most commonly used technique.

**Table 1:** Age incidence in Prolapse

Age group (years)	Number of patients
<40	8 (32%)
40-50	16 (64%)
>50	1 (4%)

**Table 2: Parity**

Parity	Non Prolapse (n=25)
Nullipara	1 (4%)
Para1	1 (4%)
Para2	5 (20%)
Para3	7 (28%)
Para4	5 (20%)
Para5 and above	6 (24%)

**Table 3: Indications**

Indications	Non-Prolapse (n=25)
DUB	12 (48%)
Adenomyosis	8 (32%)
Leiomyoma	5 (20%)

**Table 4: Operative procedures**

Non Prolapse	N (%)
Total VH	18 (72%)
Total VH+A repair	3 (12%)
Total VH+P repair	1 (4%)
Total VH+AP repair	0
TotalVH+Salpingo-oophorectomy	1 (4%)
Total VH+Salpingectomy	0
Total VH+ovarian cyst removal	1 (4%)

**Table 5: Uterus removal procedures**

Non Prolapse	N (%)
Morcellation	1 (4%)
Bivalving	7 (28%)
Myomectomy	3 (12%)
Intact	14 (56%)

**Table VI: Complications**

Non Prolapse	N (%)
Major haemorrhage	1 (4%)
Bowel injury	0
Bladder injury	0
Ureteric injury	0
Anesthetic complications	0
Vault Hematoma	0
Pulmonary embolism	0
Vaginal infection	0

### DISCUSSION

One of the commonest major surgical procedure performed in gynecology is hysterectomy. 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 route. It was the introduction of laparoscopic hysterectomy in particular, that has ignited the comparison between different routes and techniques.<sup>5</sup> Hence; we planned the present study to assess various factors associated with the use of non descent vaginal hysterectomy in benign uterine pathology

In the present study, one patient planned for NDVH was converted to laparotomy due to cervical fibroid and in another patient due to slippage of uterine vessel clamp NDVH was converted to laparotomy. No mortality was seen in the enrolled patients. Saha R et al assessed safety and feasibility of non-descent vaginal hysterectomy. A total of 50 cases were selected for non-descent vaginal hysterectomy. Among them 43 cases successfully underwent non-descent vaginal hysterectomy. From the results, the authors concluded that vaginal hysterectomy for benign gynecological causes other than prolapsed, is safe and feasible.<sup>5</sup> Mehla S et al evaluated the feasibility of performing vaginal hysterectomy for non-prolapsed uterus as a primary route. From the results, they concluded that for successful outcome size of uterus, size in all dimensions and location of fibroid should be taken into consideration.<sup>6</sup> More specific guidelines incorporating uterine size, risk factors and uterine and adnexal mobility and accessibility can help surgeons select the best route of hysterectomy and reduce the number of abdominal operations. It is possible to use such guidelines to identify women with more or less serious diseases and study the route of hysterectomies.<sup>7-10</sup> Chen B compared outcomes of vaginal and abdominal hysterectomy procedures in women with benign gynaecological diseases. This was a prospective study of outcomes of consecutive patients who underwent total vaginal hysterectomy (VH) or abdominal hysterectomy (AH) for benign gynaecological diseases. Patient characteristics before, during, and after the operations were reviewed. Patients were followed up for three months to evaluate postoperative complications. This study included a total of 313 patients. 143 patients underwent AH and 170 patients underwent VH. Baseline characteristics were similar between the two groups. There were no intraoperative complications in either group. Operation time, intraoperative blood loss, first postoperative flatus time, time to out-of-bed activity, mean maximum postoperative body temperature, and duration of fever were all significantly shorter and less severe in the VH group compared with the AH group. In addition, vaginal length in the VH group was significantly

shorter than in the AH group. Vaginal hysterectomy has advantages over AH in the treatment of benign gynaecological diseases, providing greater efficacy and safety with minimal invasiveness.<sup>11</sup> Ray A et al checked the feasibility of the vaginal route as the primary route for all hysterectomies, in the absence of uterine prolapse, for benign conditions. During 2005 to 2007 an effort was made to perform as many hysterectomies vaginally with or without oophorectomy in women with benign or premalignant conditions in the absence of prolapse. Severe endometriosis, immobility of the uterus, uterine size more than 18 weeks and malignancy were excluded. Patients were classified into two groups — Group I — uterine size up to 12 weeks, with no risk factors and Group II — uterine size 12–18 weeks or with confounding factors like, mild to moderate endometriosis, nulliparity or LSCS in the past. The outcome was compared between the two groups and abdominal hysterectomies done for benign conditions. Statistical analysis was done by SE(d) between mean and proportion. A total of 164 cases nondescent vaginal hysterectomies were done. Of these, 92 (56.1%) were in group I and 72 (43.9%) in group II. The operation time in Group II was significantly more than in group I (81.3 minutes with SD of 31.4 s. 62.6 minutes SE(d) between 2 means-7.49). Debulking techniques were required in 58.7% of the cases in group II compared to 2.1% in group I. Both the groups had one conversion each. The peroperative blood loss, pain score, hospital stay and return to normal activity, was comparable in both the groups of vaginal hysterectomy (VH) and significantly superior to those undergoing abdominal hysterectomies for benign conditions. The vaginal approach is possible in most benign conditions requiring hysterectomy and is superior to the abdominal route with respect to recovery and complication rates.<sup>12</sup>

## CONCLUSION

Non descent vaginal hysterectomy is constantly gaining grounds because of lower costs, less duration as compared to laparoscopically assisted vaginal hysterectomy or total laparoscopic hysterectomy. With increasing expertise previously considered contraindication for performing NDVH are decreasing and making almost all contraindication as relative. NDVH is highly recommended as safe procedure in properly selected cases and in hands of surgeons with high expertise.

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