

# A Comparative Study of Patient Outcome in Women Undergoing Abdominal Vs Non-Descent Vaginal Hysterectomy

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**Abstract:** ***Background:** Hysterectomy is one of the most common gynaecological surgery performed by gynaecologists all over the world. Various approaches have been tried by gynaecologist globally including abdominal, vaginal, laparoscopic and robotic hysterectomy. **Aim:** To compare outcome of NDVH with outcome of TAH in terms of intraoperative complications, post-operative morbidity and duration of hospital stay. **Methods:** A total of 50 cases were selected with enlarged uterus (<12 weeks) of which 25 underwent NDVH and rest 25 underwent TAH. All patients were evaluated for intra-operative and post-operative complications and duration of hospital stay. Data was recorded and processed using standard statistical software. **Results:** All cases of NDVH were ambulated after 24 hours post – operatively. Mean duration of hospital stay was 4.96 days for NDVH group and 7.1 days for TAH group. Thus NDVH is associated with lesser duration of hospital stay and early ambulation. **Conclusions:** NDVH is associated with decreased intra-operative complications, post-operative morbidity, early ambulation and early discharge from hospital as compared to TAH.*

**Keywords:** Hysterectomy, NDVH, TAH

## 1. Introduction

Hysterectomy, abdominal, vaginal or laparoscopic assisted vaginal hysterectomy is the most commonly performed elective major gynaecological surgery.<sup>1</sup>

The current ratio of abdominal to vaginal hysterectomy is 3:1 for the treatment of benign disorders. The ratio should be reversed as fewer post-operative complications are associated with the vaginal route, which allows earlier recovery and return to work.<sup>2</sup>

Vaginal Hysterectomy is a technique that has already been introduced and performed centuries ago but with little success probably because of inexperience or lack of enthusiasm among gynaecologists who performed the abdominal route believing it to be safer and an easier procedure. In recent decade, increased expertise has been achieved by the gynaecologist and better compliance has been reported by the patients. This has led to an increase in the number of vaginal hysterectomies compared to abdominal ones.

Vaginal surgery is least invasive and results in better quality of life as vagina is the ideal and most natural route to approach the uterus.

The emphasis on minimally invasive surgery has led to resurgence of interest and importance of vaginal hysterectomy for non-prolapse indication, i. e. non-descent vaginal hysterectomy.

Vaginal approach greatly reduces complications decreases hospital stay, lowers hospital charges and postoperative comfort is better.<sup>3</sup> Vaginal hysterectomy in true sense is a “Scar less hysterectomy”.

Laparoscopically assisted vaginal hysterectomy or total

laparoscopic hysterectomy although constantly gaining ground is associated with higher cost and longer duration of operating time and involves large number of specially trained personnel. With increasing concern over the containment of healthcare cost, there is need for expanding the indications for performing hysterectomy by vaginal non-laparoscopic methods.

Gynaecologist should become vaginal surgeon and should believe that every uterus can be removed vaginally unless contra-indicated.<sup>4</sup>

## 2. Methods

The study was carried out at SRMSIMS Bareilly, a tertiary care institute. Total 50 cases were admitted to the Gynaecology unit requiring hysterectomy for enlarged uterus (<12 weeks) were randomly selected out of which 25 cases underwent NDVH and 25 cases underwent TAH for same indications during the study period between October 2021 to March 2023.

Patients with enlarged uterus with size not more than 12 weeks, adequate uterine mobility, were included in our study. Patients with uterine size more than 12 weeks, restricted uterine mobility, pelvic organ prolapse, previous history of abdominal surgery and patients with complex adnexal mass were excluded from the study.

Every patient was clinically evaluated and investigated. Written informed consent was taken from all patients. After proper fitness and pre-anesthesia checkup patients were posted for hysterectomy.

They were divided into two groups.<sup>25</sup> patients underwent non descent Vaginal Hysterectomy and the rest underwent total abdominal hysterectomy.

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Standard surgical protocols were followed.

Post-operatively time taken for the patient to ambulate voluntarily was noted. Post-operative complications like fever, pain, bladder bowel disturbances, bleeding and wound infection were noted. Duration of hospital stay was recorded. Software used in analysis were SPSS version 17 and Microsoft office Word and Excel version 13.

**Table 1:** Comparison of intra-operative complications in both groups

Intraoperative complications	NDVH	TAH	P-value
None	24 (98%)	20 (80%)	0.016 significant
Bowel injury	0 (0%)	0 (0%)	
Bladder injury	0 (0%)	1 (4%)	
Adhesions 1 (4%)		5 (20%)	

24 out of 25 patients in NDVH group were without any intra-operative complications. 1 case of NDVH was complicated due to adhesions. 20 out of 25 patients in TAH group were without any complications. 1 case was complicated by urinary bladder injury and 5 were complicated by adhesions. The difference between the 2 groups with respects of intra-operative complications was statistically significant.

**Table 2:** Comparison of post-operative ambulation

Postoperative ambulation (hours)	NDVH	TAH	p-value
After 24 hours	25 (100%)	0 (0%)	< 0.001 highly significant
After 48 hours	0 (0%)	25 (100%)	
Total	25 (100%)	25 (100%)	

All cases of NDVH were ambulatory after 24 hours whereas all cases of TAH were ambulatory by 48 hours. Difference between in post-operative ambulation in both the study groups was statistically significant.

**Table 3:** Comparison of duration of hospital stay

Mean Hospital stay (days)	NDVH	TAH	p-value
	4.96	7.1	< 0.001 highly significant

Mean duration of hospital stay for NDVH group was 4.96 days whereas for abdominal group was 7.10 days. Difference between the two study groups with respect to hospital stay was statistically significant.

### 3. Discussion

Vaginal approach greatly reduces complications, decreases hospital stay, lowers hospital charges, post-operative discomfort and cosmetically better compared to abdominal and laparoscopic approaches.

Vaginal hysterectomy is associated with lower incidence of complications and morbidity. But like any other surgical procedure it has its own share of complications some of which are unique to the route of surgery.

All cases of NDVH were ambulated after 24 hours post – operatively. NDVH is associated with early post ambulation. Mean duration of hospital stay was 4.96 days and for TAH

group was 7.1 days.

Thus, NDVH is associated with less duration of hospital stay and early ambulation.

### 4. Conclusion

Non-descent vaginal hysterectomy is associated with less intra-operative and post-operative complications with shorter hospital stay as compared to total abdominal hysterectomy. There is early post-operative recovery and hence NDVH is a better option for females requiring hysterectomy.

In developing country like India with limited health care resources, scarcity of beds and non-availability of sophisticated equipment; NDVH offers a distinctive advantage over other routes of hysterectomy and should be the route of choice for benign uterine conditions.

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