

Original Article

Non Descent Vaginal Hysterectomy: A Rational Surgical Approach.

Abstract

Aims: To evaluate the rational approach of non-descent vaginal hysterectomy in advancing gynaecology practice.

Study Design: Retrospective study and period from 1st July 2013 to 31st June 2014. Setting Kumudini Women's Medical College & Hospital, Mirzapur, Tangail.

Patients: All selective patients requiring hysterectomy for benign gynecological disorders who did not have any uterine prolapse were recruited for this study. In bigger size uterus morcellation techniques like bisection, debulking, myomectomy, slicing, or combination of these were used to remove the uterus.

Main outcome measures: Data regarding indication, age, parity, uterine size, estimated blood loss, length of operation, complication and hospital stay were recorded.

Results: A total of 50 cases were selected for non-descent vaginal hysterectomy all of them successfully underwent non-descent vaginal hysterectomy. Commonest age group was (41-45 years) i.e. 46%. All patients were parous. Uterus size was less than 8 wks 21 cases, 8wks to 12 wks in 27 cases, more than 12 wks 02 cases. Commonest indication was DUB of uterus (44%). Mean duration of surgery was 50.5 minutes. Mean blood loss was 100ml. Blood transfusion was required in four cases. Average duration of hospital stay was 3.1 days. Complications were minimal which included UTI and Vault infection.

Conclusions: NDVH is safe feasible and patient friendly. We suggest that our modern gynecologist will be more expertise and familiar to this procedure in near future.

Key words: Vagina, Hysterectomy, DUB, Laparoscopy.

Introduction

Hysterectomy is the most common major gynecological surgery. It can be done by abdominal or vaginal route. In abdominal route laparoscopy assisted vaginal hysterectomy (LAVH) although gaining more popularity, is associated with higher cost¹, longer duration of operation, and specially trained personnel. On the other hand, non descent vaginal hysterectomy is associated with less morbidity, lower health care costs, lesser hospital stay, minimal complications and better patient satisfaction compared to laparoscopic techniques². Therefore there is a need for expanding the indication for vaginal hysterectomy (VH) rather than restricting it to the conventional indication of uterovaginal prolapse³. Usual limitation of vaginal

hysterectomy in non descent uterus is its size but now with larger sizes, hysterectomy can be facilitated by bisection, myomectomy wedge debulking and morcellation⁴. So it is now time for the gynaecologist to perform Non Descent Vaginal Hysterectomy to the level of relatively safe and simple operation. This paper aims to sharing experience of 50 cases of non- descent vaginal hysterectomy in benign disorder of uterus and exploring its simplicity, case selectivity, safety, feasibility and clinical outcome at Kumudini Women's Medical College & Hospital.

Material and method

A hospital based retrospective study was conducted from July 2013 to June 2014. All the 50 patients

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Prerequisites for non descent vaginal hysterectomy (NDVH) were set as uterine size not exceeding 14 weeks of gravid uterus (by clinical judgment), adequate vaginal access with good uterine mobility and no previous pelvic surgery. Exclusion criteria included uterus with restricted mobility, suspicion of malignancy and complex adnexal masses. Special consent for conversion to abdominal hysterectomy (if needed) was taken. Pap smear for cytology in all cases and diagnostic D&C was carried out in suspected cases. All cases were reassessed in operator theater after the patient was anesthetised, 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 uterine bisection, debulking, myomectomy or combinations of these were performed when required. Data regarding age, parity, uterine size, estimated blood loss, length of operation, complications, adjuvant procedures, clinical outcome and hospital stay were recorded. All patients received prophylactic antibiotics for 5 days. Post operative Foley catheter was kept in all cases for 12 to 24 hours. All patients were followed from time of admission to time of discharge and 2 weeks and 4 wks thereafter.

Operative Technique

All cases were done under spinal anesthesia. After cleaning and draping, cervix was held with volsellum and injected with normal saline and adrenaline [1:2 lakh dilutions] if not contraindicated before making the incision in order to minimize blood loss. Circumferential incision was made around the cervix, pubo-vesico-cervical ligament was cut and bladder mobilized upwards. (Fig:-1) Both anterior and posterior pouches were opened one after another.



Fig:-1

Uterosacral and cardinal ligaments were clamped, cut and ligated. Clamping of uterine vessels was done bilaterally. Next in bigger sized uterus morcellation techniques like uterine bisection, debulking, myomectomy or combinations of these were performed when required.

Chart-1. Debulking techniques used (when uterus is more than 8 wks)

Technique	Cases
Bisection	11
Myomectomy	07
Morcellation (slicing and wedge debulking)	03

*Combination of these techniques required in some cases

In case of fibroid with bigger sized uterus bisection was done after ligating the uterine arteries and myomectomy was done to ease limitation of space for further proceedings (Fig:-5,6).



Fig:-5

Fig:-6

In total hysterectomy, last clamp was on uterine cornu containing round ligament, ovarian ligament and medial part of fallopian tube (Fig:-2,3).

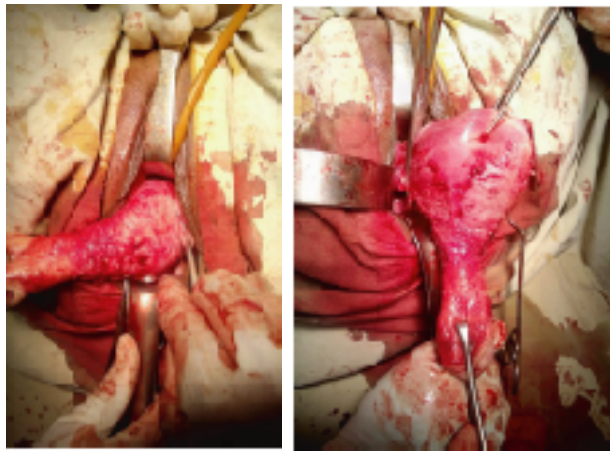


Fig:-2

Fig:- 3

To remove ovaries, round ligament was clamped separately followed by clamping of infundibulopelvic ligament. After delivery of the uterus (with ovaries) hysterectomy was completed in usual fashion (Fig:-4).

All patients received 5 days of prophylactic antibiotics. Vaginal pack and Postoperative catheterization.



Fig:-4

Result & Discussions

It is a well-known fact that 70% to 80% of hysterectomies are performed by abdominal route and vaginal approach is usually reserved for uterovaginal prolapse⁵. The usual contraindications for vaginal hysterectomy are absence of significant uterovaginal prolapse, presence of uterine enlargement, adhesions and the need for oophorectomy. With adequate vaginal access and good uterine mobility, vaginal hysterectomy can be easily performed. Out of 50 cases selected for NDVH, all cases were completed successfully, no cases were needed conversion to abdominal hysterectomy, these may be due to proper selection of cases. Whereas other studies shows converted to abdominal hysterectomy due to various reasons⁶. Majority of the patients were in the age group of 41-45 year. Similar age prevalence was noted in other case series reviews⁷. Similarly most of the patients were parous comparable to other studies^{8,9,10,11,12}.

Table 1. Age group of the patients

Age group (yrs)	No	Percentage %
35 -40	15	30
41 -45	23	46
46 - 50	06	12
>50	06	12
Total	50	100

*Commonest age group was 41-45 yrs

The commonest indication was DUB (44%). Whereas Leiomyoma of uterus remained commonest indication in case series by Goel et al³, Dewan et al⁹, Bharatnur et al¹⁰ and Singh et al¹³.

Table 2. Indications for NDVH

Indications	No.	Percentage %
Fibroid uterus	15	30
DUB	22	44
Adenomyosis	05	10
Cervical polyp	05	10
Myometous	03	6
Polyp		
Total	50	100

*Commonest indication was DUB (Dysfunction Uterine Bleeding)

In our study 82% patients undergone only NDVH, 16% patients undergone NDVH with salpingoophorectomy, and 2% patient undergone NDVH with kelly's repair for stress urinary incontinence. This suggests that adenexal pathology (cyst up to 5-6cm) can be dealt vaginally without any complication and urogynecological surgery can also be performed at same time in NDVH¹⁴.

Table 3: Incidence of adjuvant procedures

Surgery	No of patients	Percentage %
NDVH	41	82
NDVH+SO	08	16
NDVH+kelly's Repair	01	02

SO;-Salpingo-ophorectomy

In our study no single case had earlier undergone abdominal pelvic surgery ,some cases (n-13) had undergone bilateral tubal ligation. Mean blood loss was 100 ml and amount of loss depend on uterine size and duration of surgery. It was lesser than that reported in other studies like 268ml⁸, 290ml^{9,11}, 316.4ml¹⁰.

Four (08%) of the patients required blood transfusion which is same as shown by CREST study. Mean duration of surgery was 50.5 minutes as compared to Goel et al (64 minutes)⁸, Dewan et al (54.5 minutes)⁹, Bharatnur et al (65minutes)¹⁰, and Bhadra (55 minutes)¹¹. The operative 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 cases^{15,16}. The length of hospital stay reported by Dorsey JH et al¹⁷ was 3.5 days. In our series hospital stay was 3.1 days. Debulking was done when the uterus size was more then 8 wks. Among all the debulking surgeries bisecting the uterus remained the first and foremost technique¹⁸.

Table 4 Clinical outcome

Parameters	Results
Mean operating time	50.5 (35-100) mins
Mean blood loss	100 (40 – 150) ml
Mean hospital stay	3.1 (3 – 5) days

Major complications were nil due to prior proper selection of cases skilled surgeon. Minor complications were included UTI and Vault infection which is comparable with other studies also⁶.

Table 5. Complications

Complications	No
Bladder injury	01
Vaginal cuff infection	02
Blood transfusion	04
Urinary tract infection	04

Conclusion

Considering all of these NDVH is safe feasible, cost effective and patient friendly. A combination of morcilation techniques is often needed and also with development of expertise operative time blood loss and complications can be reduced. Decision for route of Hysterectomy should be individualized depending upon what is best for the patient. Therefore this technique should be practice frequently and active effort should be taken to teach this procedure. We suggest that our modern gynecologist will be more expertise and familiar to this procedure in near future.

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ISSUE 14/ Jul-Dec, 2012

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