

DOI: 10.5455/2320-1770.ijrcog20150212

Research Article

Non decent vaginal hysterectomy: personal experience of 105 cases

Suman Mehla^{1*}, Nimmi Chutani¹, Monika Gupta²

¹Department of Obstetrics & Gynaecology, SMS&R, Sharda University, Greater Noida, Uttar Pradesh, India

²Department of Obstetrics & Gynaecology, HIMSR &HAHC, New Delhi, India

Received: 10 November 2014

Accepted: 10 December 2014

***Correspondence:**

Dr. Suman Mehla,

E-mail: mehlasuman@yahoo.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Objective of current study was to evaluate the feasibility of performing vaginal hysterectomy for non-prolapsed uterus as a primary route.

Methods: A hospital based prospective study was conducted at department of obstetrics and gynaecology of SMS & R from 1st January 2011 to 31st August 2014. All the patients undergoing non-descent vaginal hysterectomy for benign indication, without suspected adnexal pathology were included in the study. Vaginal hysterectomy was done in usual manner. In bigger size uterus morcellation techniques like bisection, debulking, myomectomy, slicing, or combination of these were used to remove the uterus. Data regarding age, parity, uterine size, estimated blood loss, length of operation, complication and hospital stay were recorded.

Results: A total of 105 cases were selected for non-descent vaginal hysterectomy. All 105 cases successfully underwent non-descent vaginal hysterectomy. Commonest age group was (41-45 years) i.e. 48.6%. All patients were parous. Uterus size was <8 weeks in 72 cases and >8 weeks in 33 cases. Commonest indication was AUB (45.7%). Mean duration of surgery was 90 minutes. Mean blood loss was 205 ml. The most common complication was post-operative pain in 21.9% of cases. Febrile morbidity was present in 9.5% of cases. Blood transfusion was required in 4 cases. Average duration of hospital stay was four days.

Conclusions: Vaginal hysterectomy for benign gynecological causes other than prolapse is safe and feasible, more economical and 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.

Keywords: Non-descent vaginal hysterectomy, Morcellation, Safety

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 route.^{1,2} Most of the literature supports the view that vaginal hysterectomy, when feasible, is the safest and most cost-effective procedure for removal of the uterus.³ Nevertheless, the abdominal route is the one most commonly chosen: 66% of hysterectomies are performed abdominally, 22% are

performed vaginally, and 12% are performed laparoscopically.⁴

It was the introduction of laparoscopic hysterectomy in particular, that has ignited the comparison between different routes and techniques. A Cochrane review found that the vaginal route, compared with all other routes for hysterectomy, yields better outcomes and fewer complications.⁵ The latest value study concluded that major hemorrhage, hematoma, ureteric injury, bladder injury, and anesthetic complications were more in laparoscopic assisted hysterectomy (LAVH) group when

compared to abdominal and vaginal hysterectomies.⁶ In addition LAVH was accomplished in twice the time required for vaginal hysterectomy.^{1,2} A surgeon's reluctance to perform vaginal procedures due to a lack of training or experience, especially in dealing with a significantly enlarged uterus, may contribute to the preference for LAVH. The only formal guideline available is the uterine size by the American college of obstetricians and gynaecologist that transvaginal hysterectomies are preferred in women with a uterus no larger than 12 weeks of gestation size (approximately 280 to 300 g).⁷ A recent study by Kovac⁸ favored transvaginal hysterectomy for uterine weight less than 280 g and some reports⁹ have demonstrated the benefits of LAVH in dealing with a much larger uterus. A rationale for the guideline based on research data is therefore needed.

This paper aims at sharing experience of 105 cases of non-descent vaginal hysterectomy and exploring the safety and feasibility of non-descent vaginal hysterectomy in disease confined to the uterus at School of Medical Sciences and Research, Sharda University.

METHODS

A hospital based prospective study was conducted from 1st January 2011 to 31st August 2014. All the patients undergoing non descent vaginal hysterectomy for benign indications, without suspected adnexal pathology were taken for study.

Prerequisites for Non-Descent Vaginal Hysterectomy (NDVH) were set as uterine size not exceeding 20 weeks of gravid uterus (by clinical judgment) and adequate vaginal access with good uterine mobility. 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.

All cases were reassessed in operating theater after the patient was anaesthetised, 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 as and when required.

Data regarding age, parity, uterine size, estimated blood loss, length of operation, complications and hospital stay were recorded. All patients received prophylactic antibiotics for 3 days.

Post-operative foley's catheter was kept for 24 hours in all cases except in one case where bladder injury occurred where it was kept for 10 days. All patients were discharged on day 4 of hysterectomy. All patients were followed from time of admission to time of discharge and 2 weeks thereafter.

RESULTS

Total no. of cases contemplated for NDVH during the study period were 105. Table 1 shows indications for which NDVH was done. It shows AUB (45.7%) to be the commonest indication for NDVH followed by fibroid (19%). Most of the patients (48.6%) were in perimenopausal age group 41-45 (Table 2). All the patients were parous (Table 3). Table 4 shows data on size of uterus. Most of the (68.5%) had uterine size less than or equal to 8 weeks.

Various morcellation techniques were used to deliver the uterus in all cases. Bisection was used in 91.4% cases (Table 5). Of 105 patients 11 had previous LSCS scar (Table 6). Associated adnexal surgery was done in 11 cases, mostly salphingo-oophorectomy (Table 7). Various intraoperative and postoperative complications that occurred during surgery are depicted in Table 8. Mean duration of surgery was 90 minutes. Mean blood loss was 205 ml and average hospital stay was 4 days (Table 9).

Table 1: Indications for NDVH.

Indications	No. of pts. (N)	Percentage (%)
AUB*	48	45.70%
Fibroid	20	19%
Adenomyosis	17	16.20%
PID	9	8.60%
Postmenopausal bleeding	4	3.80%
CIN	3	2.90%
Cervical polyp	2	1.90%
Endometrial polp	2	1.90%

*Commonest indication was AUB

Table 2: Age group of the patients.

Age (years)	No. of pts.	Percentage (%)
35-40	31	29.50%
41-45*	51	48.60%
46-50	19	18.10%
>50	4	3.80%

*Commonest age group was 41-45 years

Table 3: Parity of patients.

Parity	No.	Percentage (%)
1	4	3.80%
2	14	13.30%
3*	47	44.80%
4	40	38.10%

*Most of the patients were para 3

Table 4: Uterine size in cases selected for NDVH.

Uterine size	No. of cases	Percentage (%)
Upto 8 weeks*	72	68.50%
>8 to 12 weeks	20	19%
>12 to 16 weeks	11	10.40%
>16	2	1.90%

*Majority of cases had less than 8 weeks size uterus

Table 5: Debulking technique used.

Technique	Cases	Percentage (%)
Bisection	96	91.40%
Myomectomy	22	20.90%
Morcellation (slicing and wedge debulking)	8	7.60%

*Combination of these techniques required in some cases

Table 6: Previous pelvic surgery.

Previous operation	Cases
Tubectomy	78
LSCS	11
Total	89

Table 7: Associated adnexal surgery performed.

Associated adnexal surgery	Cases
Ovarian cystectomy	3
Salpingo-oophorectomy	6
Salpingectomy	2
Total	11

Table 8: Complications in cases of NDVH.

Complications	No. of patients
Intra-operative	
Bladder injury	1
Vault haematoma	1
Post-operative	
Pain VAS on POD 3	23
Pyrexia	10
Haemorrhage requiring blood transfusion	4
UTI	7

Table 9: Surgical results (Parameters).

Parameters	
Average operating time	90 min.
Average blood loss	205 ml
Average hospital stay	4 days

DISCUSSION

Of 105 cases selected for NDVH, all cases were completed successfully. Majority of the patients were in the age group of 41-45 year. Similar age prevalence was noted in other case series reviews.¹⁰⁻¹² Similarly most of the patients were parous comparable to other studies.¹⁰⁻¹² Whereas fibroid uterus was commonest indication in case series by Dewan et al.,¹⁰ Bharatnur et al.¹¹ but commonest indication of NDVH in our study was AUB (45.7%) as in study by Purohit RK et al. in 2003.¹³ 13 cases had uterine size >12 weeks, out of which 2 cases were >16 weeks. Purohit RK et al.¹³ had reported performance of vaginal hysterectomy upto 20 weeks size. Morcellation by different technique (bisection, myomectomy, wedge debulking) was needed in all cases (Figure 1, 2). Among all the debulking surgeries bisecting the uterus remained the first and foremost technique.

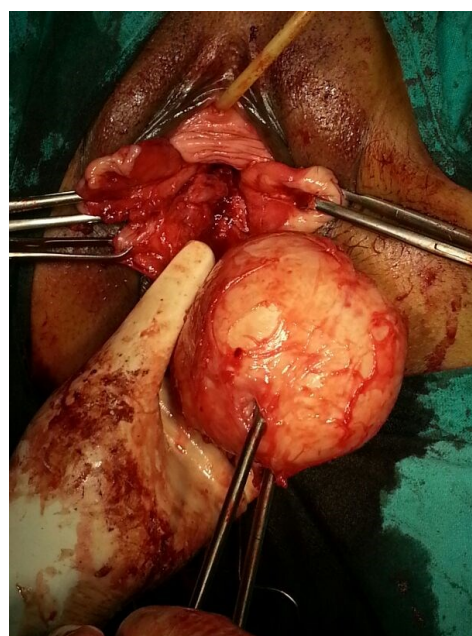


Figure 1: Volume of large uterus being reduced by myomectomy.



Figure 2: Volume reduction technique - combination of bisection, myomectomy and slicing.

Lower segment caesarean section and nulliparity has been reported to impede vaginal surgery due to lesser laxity of ligaments of uterus and narrower vagina.¹⁴ However in our study 11 (10.4%) patients with previous LSCS underwent VH successfully. Adnexal surgery was done in 11 cases without any difficulty. As recommended by ACOG committee 2009, the decision to perform a salpingo-oophorectomy should not be influenced by the chosen route for hysterectomy and is not a contraindication for vaginal hysterectomy.³ In a study by Guvenal et al. they performed oophorectomy in 44.7% cases of vaginal hysterectomy.¹⁵

Mean blood loss was 205 ml and amount of blood loss depended on uterine size and duration of surgery. It was lesser than that reported in other studies like, 290 ml,¹⁰ 316.4 ml.¹¹ But it was more as compared to some other studies as 100 ml¹² and 35.56 ml.¹⁶ Four (3.8%) of the patients required blood transfusion which is less than shown by CREST study. Mean duration of surgery was 90 minutes as compared to Dewan et al. (54.5 minutes),¹⁰ Bharatnur et al. (65 minutes)¹¹ and Bhadra (55 minutes).¹² 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.^{1,2} Das and Seth did observe a substantial increase in operation time even at increased uterine volume.^{1,2} However Unger showed a linear relationship between uterine weight and operating time.

Bladder injury was encountered in one case done for indication of chronic PID with previous LSCS. In literature 0.5-1.5% incidence of bladder injury was reported for vaginal hysterectomies.¹⁷ Purohit RK 2003 et al.¹³ reported 1.53% bladder injury by finger dissection. Postoperative complications were minimal which included post-operative pain and fever and UTI. The length of hospital stay reported by Dorsey JH et al.¹⁸ was 3.5 days for vaginal hysterectomy. The average duration of hospital stay in our study was 4 days.

CONCLUSIONS

Vaginal hysterectomy for non-prolapsed uterus is an art as well as challenge to the gynaecologist. Day by day the previous contraindications to the vaginal hysterectomy are getting waved out. A thorough pre-operative assessment and examination under anaesthesia is an integral part of decision making for route of hysterectomy. Size, descent and mobility of uterus, uterine dimensions along with fundal height should be considered before contemplating non-descent vaginal hysterectomy. Debulking is safe and accomplishes the surgery by vaginal route in most of the cases. NDVH is safe and feasible in hands of trained vaginal surgeons. Decision for route of hysterectomy should be individualized depending upon what is best for the patient. If hysterectomy is possible by all three routes, preference should be given to vaginal route. Patient

should also know the best options available and be involved in decision making.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Sheth SS. Vaginal hysterectomy. In: Puri R, Malhotra N, eds. *Operative Obstetrics and Gynaecology*. 1st ed. New Delhi. Jaypee Brother's Medical Publishers. 2009: 499-510.
2. Sheth SS, Paghdwalla KP. Vaginal hysterectomy. In: Saraiya UB, Rao AK, Chateerjee A, eds. *Principles and Practice of Obstetrics and Gynaecology*. 2nd ed. New Delhi. Jaypee Brother's Medical Publishers; 2003: 374-380.
3. ACOG Committee Opinion No. 444: Choosing the route of hysterectomy for benign disease. *Obstet Gynaecol* 2009 Nov;114(5):1156-8.
4. Wu JM, Wechter ME, Geller EJ, Nguyen TV, Visco AG. Hysterectomy rates in the United States, 2003. *Obstet Gynaecol*. 2007 Nov;110(5):1091-5.
5. Nieboer TE, Johnson N, Lethaby A, Tavender E, Curr E, Garry R, et al. Surgical approach to hysterectomy for benign gynaecological disease. *Cochrane Database Syst Rev*. 2009 Jul;(3):CD003677.
6. McCracken G, Hunter D, Morgan D, Price JH. Comparison of laparoscopic-assisted vaginal hysterectomy, total abdominal hysterectomy and vaginal hysterectomy. *Ulster Med J*. 2006;75(1):54-8.
7. Precis I. An update in obstetrics and gynecology. In: Precis I, eds. *CD-ROM*. Washington, DC: American College of Obstetricians and Gynaecologists; 1989.
8. Kovac S. Hysterectomy outcomes in patients with similar indications. *Obstet Gynaecol*. 2000;95:787-93.
9. Nimaroff M, Dimino M, Maloney S. Laparoscopic-assisted vaginal hysterectomy of large myomatous uteri with supracervical amputation followed by tracelectomy. *J Am Assoc Gynaecol Laparosc*. 1996;3:585-7.
10. Dewan R, Agarwal S, Minocha B, Sen SK. Non-descent vaginal hysterectomy: an experience. *J Obstet Gynaecol India*. 2004;54(4):376-8.
11. Bharatnur S. Comparative study of abdominal versus vaginal hysterectomy in non-descent cases. *Internet J Gynaecol Obstet*. 2011;15(2):1528-39.
12. Bhadra B, Choudary AP, Tolassaria A, Nupur N. Non-descent vaginal hysterectomy (NDVH): personal experiences in 158 cases. *AL Ameen J Med Sci*. 2011;4(1):23-7.
13. Purohit RK, Tripathy PN, Patnaik AK. Vaginal hysterectomy using electrocautery and Purohit approach to uterine artery. *J Obstet Gynaecol India*. 2003;53:475-8.

14. Ottosen C, Lingeman G, Ottosen L. Three methods of hysterectomy: a randomized, prospective study of short term outcome. *BJCOG.* 2000;107:1380-5.
15. Guvenal T, Ozsoy AZ, Kilcik MA, Yanik A. The availability of vaginal hysterectomy in benign gynaecological diseases: a prospective, non-randomized trial. *J Obstet Gynaecol Res.* 2010;36:832-7.
16. Singh A, Bansal S. Comparative study of morbidity and mortality associated with non-descent vaginal hysterectomy based on ultra sonographic determination of uterine volume. *Int Surg.* 2008;93(2):88-94.
17. Harris WJ. Early complications of abdominal and vaginal hysterectomy. *Obstet Gynaecol Surv.* 1995;50:795-805.
18. Dorsey JH, Steinberg EP, Holtz PM. Clinical indications for hysterectomy route: patient characteristic or physician preference. *Am J Obstet Gynaecol.* 1995;173(5):1452-60.

DOI: 10.5455/2320-1770.ijrcog20150212

Cite this article as: Mehla S, Chutani N, Gupta M.

Non decent vaginal hysterectomy: personal experience of 105 cases. *Int J Reprod Contracept Obstet Gynecol* 2015;4:61-5.