

## Vaginal Hysterectomy for Non Descent Uterus- A Prospective Multicentric Study

This article was published in the following Scient Open Access Journal:

Women's Health & Gynecology

Received March 23, 2016; Accepted April 18, 2016; Published May 04, 2016

Chaitra Ramachandra<sup>1\*</sup>, Ramlingappa<sup>2</sup>,  
Deepa<sup>3</sup> and Shankaregowda<sup>4</sup>

<sup>1</sup>Assistant Professor, Department of Obstetrics and Gynaecology, BGS Global Medical College, Bangalore, Karnataka, India

<sup>2</sup>Professor and HOD, Department of Obstetrics and Gynaecology, Karnataka Institute of Medical Sciences, Hubli, Karnataka, India

<sup>3</sup>Consultant Obstetrician and Gynaecologist, Agadi Hospital, Hubli, Karnataka, India

<sup>4</sup>Professor and HOD, Department of Obstetrics and Gynaecology, BGS Global Medical College, Bangalore, Karnataka, India

### Abstract

**Introduction:** Vaginal route of hysterectomy is being reinvented in the present era due to the advantage of reduced operating time, lesser hospital stay, reduced morbidities and better patient satisfaction. Therefore, the objective of this study was to evaluate the effectiveness of vaginal hysterectomy as a primary route for all indicated cases, in absence of uterovaginal prolapse.

**Materials and Methods:** In this study, 863 cases of non-descent vaginal hysterectomy for uterine size between normal to 18weeks gravid size were included and operated after complete evaluation with a valid consent. Operating time, blood loss, haemoglobin levels and hospital stay were estimated. An Intra operative and post-operative complication if any was noted. Patient was asked to report to the outpatient department after two and six weeks for follow up.

**Results:** The commonest age group in the study was between 41-50 years comprising of 43.80% of the cases followed by 30-40 years (28.04%). The most common indication in the study was Dysfunctional uterine Bleeding (48.9%) followed by Fibroid Uterus (33.8%), Adenomyosis (10%) and Chronic Pelvic Inflammatory disease (3.24%). 6-10weeks gravid size was most commonly operated upon constituting 53% of cases. The average operating time was between 20-60 minutes, with an average blood loss between 50 to 150 ml, with an average hospital stay of 3-4 days. A total of 83 cases (9.61%) developed complications with urinary tract infection in 24 cases (2.78%), wound infection in 47 cases (5.44%), vaginal bleeding in 12 cases (1.39%).

**Conclusion:** For properly selected cases vaginal hysterectomy is the preferred route in the hands of experienced surgeons. The need of the hour is minimally invasive surgery, early discharge from the hospital, early resumption of work, avoidance of disfiguring scar on the abdomen and cost-effectiveness of the procedure are as important as cure of the disease. Vaginal hysterectomy fulfils these criteria to absolute satisfaction.

### Introduction

Langeback first performed vaginal hysterectomy in 1813. Non descent Hysterectomy was pioneered by Haeney in 1934. Since the advent of Laparoscopy in 1990's, the conventional methods of hysterectomy have often been debated due to greater emphasis on minimal invasive surgery. However, in recent times, vaginal route of hysterectomy[1-3] is being reinvented due to the advantage of reduced operating time, lesser hospital stay, reduced morbidities and better patient satisfaction. Therefore, there is a need to extend to extend the scope of vaginal hysterectomy in the present era. Therefore, the objective of this study was to evaluate the effectiveness of vaginal hysterectomy as a primary route for all indicated cases, in absence of uterovaginal prolapse.

### Material and Methods

The present study was undertaken in Department of OBG, KIMS Hubli and Department of OBG, BGS-GIMS, Bangalore between January 2004 to October 2015. In this study 863 cases of Non Descent vaginal Hysterectomy for uterine size between normal to 18weeks gravid sizewith grade 0 to 1 descent were included. Women with uterine size of more than 18weeks, complex adnexal cyst, severe endometriosis and suspected or confirmed malignancy were excluded from the study. All cases were performed under spinal anaesthesia.

\*Corresponding author: Chaitra Ramachandra, Assistant Professor, Department of Obstetrics and Gynaecology, BGS Global Medical College, Bangalore, Karnataka, India, Tel: 91-9611137336, Email: drchaitramachandra@gmail.com

All these patients were admitted in gynaecology department after general examination, per abdominal examination, local examination, per speculum and per vaginal examination for size and position of uterus, degree of descent, mobility of uterus, associated with cystocele, rectocele, decubitus ulcer. The patients were thoroughly 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.

Operative site was cleaned and draped, cervix was held with a vulsellum. A circumferential incision was taken around the cervix, pubo-vesical ligament cut and bladder pushed up. Anterior and Posterior peritoneum were opened, ligaments and uterine vessels were cut and transfixed. If uterine exteriorisation was found to be difficult; morcellation, bisection or combination of both were used. Suturing the cardinal and uterosacral ligaments to the vaginal cuff at the time of hysterectomy was done to prevent vault prolapse. Small vaginal pack was placed at the end of the surgery.

Operating time was calculated from the beginning to the incision at cervico-vaginal junction to the placement of small vaginal pack. Blood loss was calculated by weighing the cotton

Age(in years)	Number of Patients	Parity	Number of patients
30-40	242 (28.04%)	Nulligravida	28 (3.24%)
41-50	378 (43.80%)	Primigravida	43 (4.98%)
51-60	217 (25.14%)	Multigravida	792 (91.77%)
>60	26 (3.01%)		

**Table 1:** The commonest age group in the study between 41-50 years comprised of 43.80% of the cases followed by 30-40 years (28.04%). Age group between 51-60 years comprised 25.14% of the cases and age group >60 years comprising of 3.01% of the cases.

Multigravid women constituted 91.77% of cases, whereas primigravid and nulligravid women constituted 4.98% and 3.24% of the cases respectively.

Indication	Number of patients	Size of Uterus	Weight of the Uterus	Number of patients
DUB	422 (48.9%)	Normal	<= 200 gms	120 (13.9%)
Fibroid Uterus	291 (33.8%)	6-10 weeks	<= 200 gms	458 (53%)
Adenomyosis	86 (10%)	12-14 weeks	200-400 gms	247 (28.62%)
Chronic PID	28 (3.24%)	16-18 weeks	400-600 gms	38 (4.4%)
Others	36 (4.17%)			

**Table 2:** The most common indication in the study was Dysfunctional uterine Bleeding (48.9%) which did not respond to medical therapy followed by Fibroid Uterus (33.8%), Adenomyosis (10%) and Chronic Pelvic Inflammatory disease(3.24%). 6-10weeks gravid size was most commonly operated upon constituting 53% of cases, 12-14 weeks constituting 28.56% of cases and normal sized uterus and 16-18weeks constituting 13.9% and 4.4% of cases respectively.

Average operating time	20-60 min (40min)
Average blood loss	50-150ml
Average hospital stay	3-4 days

**Table 3:** The average operating time was between 20-60minutes, with an average blood loss between 50 to 150ml, with an average hospital stay of 3-4 days.

NDVH	826 (95.7%)
NDVH with Salphingo- oophorectomy	35 (4.5%)
NDVH with Kelly's repair	2 (0.23%)

**Table 4:** Other procedures in the study was salphingo-oophorectomy in 35 cases (4.5%) and Kelly's stitch in 2 cases (0.23%)

Urinary tract infection	24 (2.78%)
Wound Infection including cuff abscess	47 (5.44%)
Vaginal Bleeding	12 (1.39%)
Fistulas	Nil
Vault Haematoma	Nil
Secondary Haemorrhage	Nil

**Table 5:** A total of 83 cases (9.61%) developed complications with urinary tract infection in 24 cases (2.78%), wound infection in 47 cases (5.44%), vaginal bleeding in 12 cases (1.39%).

swabs, mops before and after the surgery. Patient received antibiotics and analgesics as per hospital protocol. Haemoglobin was estimated on day-3 and patients were discharged between day 3 to day 5. Hospital stay was defined as number of days in hospital excluding the operating day. Patient was asked to report to the outpatient department after two and six weeks for follow up.

All the patients were observed post-operatively for development of complications like urinary tract infection, primary or secondary haemorrhage, vault sepsis, urinary tract fistula.

## Results

During the study period, 863 cases were included for non descent vaginal hysterectomy with or without adnexectomy (Table 1).

## Indication and the Size of Uterus

The most common indication in the study was Dysfunctional uterine Bleeding(48.9%) which did not respond to medical therapy followed by Fibroid Uterus(33.8%), Adenomyosis (10%) and Chronic Pelvic Inflammatory disease(3.24%). 6-10weeks gravid size was most commonly operated upon constituting 53% of cases, 12-14 weeks constituting 28.56% of cases and normal sized uterus and 16-18weeks constituting 13.9% and 4.4% of cases respectively(Table 2).

## Surgical Results

The average operating time was between 20-60minutes, with an average blood loss between 50 to 150ml, with an average hospital stay of 3-4 days(Table 3).

## Adjuvant Procedures in the study

Other procedures in the study was salphingo-oophorectomy in 35 cases (4.5%) and Kelly's stitch in 2 cases (0.23%)(Table 4).

## Complications: 83 cases (9.61%)

A total of 83 cases (9.61%) developed complications with urinary tract infection in 24 cases (2.78%), wound infection in 47 cases (5.44%), vaginal bleeding in 12 cases (1.39%)(Table 5).

## Discussion

Vaginal hysterectomy for non-descend uterus is an art as well as a challenge to the gynaecologist. 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. The uterosacral and cardinal ligaments, situated in close proximity

to the vaginal vault once clamped and cut produce first degree descent. Multiparity, lax tissues following multiple deliveries and decreased tissue tensile strength provide comfort to vaginal surgeon even in the presence of uterine enlargement. The other important reason for the lower proportion of hysterectomies performed vaginally is the presence of uterine enlargement with leiomyomas or adenomyosis. However, bulky uterus can be dealt with techniques like bisection, myomectomy or debulking.

Advantages of doing NDVH[7] over abdominal hysterectomy[8] 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 anaesthetics complications, largely extra peritoneal 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 up to 16week sizes[9,10] and adnexal pathology can be also removed by vaginally. For moderate to large sized uterus with benign conditions, techniques like bisection, coring, and morcellation[5] may be adopted in an attempt to reduce the uterine volume prior to removal[5]. Jeffcott has rightly observed that a thrombo-embolic phenomenon is remarkable by its absence in vaginal surgery.

For properly selected cases vaginal hysterectomy is the preferred route in the hands of experienced surgeons. The need

of the hour is minimally invasive surgery, early discharge from the hospital, early resumption of work, avoidance of disfiguring scar on the abdomen and cost-effectiveness of the procedure are as important as cure of the disease. Vaginal hysterectomy fulfills these criteria to absolute satisfaction.

## References

1. Singh KC, Barman SD, Rinku Sengupta. Choice of hysterectomy for benign disease, department of obstetrics and gynaecology, University College of medical sciences. *Delhi J Obstet Gynecol.* 2004;54;365-370.
2. Kovac SR. which route for hysterectomy? Evidence based outcomes guide selection. *Postgrad Med.* 1997;102(3):153-158.
3. Kovac SR. guidelines to determine the route of hysterectomy. *Obstet Gynecol.* 1995;85(1):18-23.
4. Quality assurance in obstetrics and gynaecology. Washington DC, American college of obstetrics and gynaecology. 1989.
5. Lash AF. A method for reducing size of uterus in vaginal hysterectomies. *American journals of obstetrics and gynaecology.* 1941;442-452.
6. Novak's gynaecology 14th edition- hysterectomy Thomas G. Stovall.
7. Schwarz R. choice of surgical route in hysterectomy. *GynekolRundsch.* 1990;30(4):248-252.
8. Del Frat G, Soligo M, Rossi A, Del Frate C. vaginal and abdominal hysterectomy: comparison and perspectives. Apropos of 385 consecutive cases. *Minerva Gynaecology.* 1996;48(5):181-191.
9. Gimbel H, Sittnes A, Tatar A : hysterectomy on benign indication in Denmark 1988-1998. A register based trend analysis. *Acta Obstet Gynaecol scand.* 2001;80(3):267-272.
10. Dorsey JH, Steinberg EP, Holtz PM. clinical indication for hysterectomy route. *Am J obstetgynaecol.* 1996;175(1):232-233.