

## Renaissance of Art of Non Descent Vaginal Hysterectomy.

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### Abstract:

**Objective:** To Renaissance (meaning “rebirth”) the art of Non Descent Vaginal Hysterectomy as a primary approach for benign pathology.

**Methods:** A comparative study of 50 patients who were admitted for hysterectomy with a wide range of indications and who underwent Non Descent Vaginal Hysterectomy or Total Abdominal Hysterectomy or Total Laparoscopic Hysterectomy were studied. The outcomes were compared in terms of age group, indications, parity, surgery duration, post op complications, post op hospital stay, need for blood transfusion etc.

**Results:** Majority of the patients were in age group of 40-49 (46%) with a median of 44 years.

Commonest indication was fibroid uterus (55%) followed by dysfunctional uterine bleeding (24%) followed by adenomyosis (20%) and post meno pausal bleeding (6%). Average operating time of NDVH surgery was within 30 mins in 9 cases (60%) were as in TAH it was between 46-60 mins in 7 cases (46%) and in TLH it was more than 60 mins in 12 cases (75%). Most of the patients who underwent NDVH was done under spinal anesthesia (86%), TAH (67%) where as TLH done in 14 (93%) under general anesthesia.

**Conclusion:** Non Descent Vaginal Hysterectomy can be considered a primary approach for any benign uterine pathology.

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### I. Introduction

Hysterectomy is frequently performed gynecologic and obstetric procedure world wide, second only to cesarean delivery<sup>1</sup>. Historically, the uterus has been removed either by the abdominal or vaginal route or laparoscopic route. Laparoscopic assisted vaginal hysterectomy & Total laparoscopic Hysterectomy although gaining more popularity, is anyways requires higher cost<sup>2</sup>, longer duration of operation and needs specially trained personal<sup>3</sup>. On the other hand, vaginal route is always associated with less morbidity and lower health care costs compared to laparoscopic techniques. Vaginal hysterectomy is minimally invasive procedure, utilizes natural orifice as the route and can be first choice for benign pathology without associated adnexal pathology. A comparative study of Non Descent Vaginal Hysterectomy with Total abdominal hysterectomy with Total laparoscopic hysterectomy October 2014 – October 2015 was conducted. NDVH can be first choice of hysterectomy for benign pathology without associated adnexal pathology. Laparoscopy assistance can be advantageous in associated adnexal pathology. Choice of route of hysterectomy depends on the pathology of the uterus and adnexal pathology apart from the expert of the surgeon and facilities available. LAVH although gaining ground in, but has association with higher costs, longer duration of operation, and involves a larger number of specially trained personnel. With increasing concern over the containment of health care costs, there is a need for expanding the indications for performing hysterectomy via the vaginal non-laparoscopic method<sup>4</sup>, instead of confining it to the conventional uterine descent. Usual limitation of vaginal hysterectomy can be facilitated by bissection, myomectomy, wedge delbulking and intramyometrial coring (morcellation)<sup>5</sup>. Dorse et al stated, for many well documented reasons, hysterectomy is but accompanied by the vaginal route whenever the indications are suitable and the reasons skill is commensurate the task. Our aim of the study was to rediscover the forgetting art of non – descent vaginal hysterectomy which make woman suitable for vaginal hysterectomy and not only to explore different surgical techniques that make vaginal hysterectomy simple and easier to perform but also to rediscover the NDVH as primary approach for and benign condition without any adnexal pathology.

### II. Materials And Methods

The present study was randomized comparative clinical trial conducted in the department of OBG of Dr. B.R.A.M.C over a period of 1 year from October 2014 – 2015.

Patients admitted for hysterectomy for variable indications were the study population. From patients detailed history was obtained, indication for surgery was noted, evaluated and posted for proposed route of surgical intervention, intra operative duration of surgery, post op complications, post op mobilization, post op hospital stay, post op blood transfusions were followed up meticulously.

A comparative study keeping all above mentioned parameters were been studied amongst 45 patients posted for either total abdominal hysterectomy , non-descent vaginal hysterectomy or total laparoscopic hysterectomy.

**Inclusion Criteria**

- Uterine size less than 16 weeks size
- Fibroid uterus.
- Adenomyosis.
- Dysfunctional Uterine Bleeding
- Chronic cervicitis.
- Post menopausal bleeding.

**Exclusion Criteria.**

- complex adnexal mass.
- Restricted motility/ patients with previous 2 or more LSCS.
- Suspicion of malignancy.
- Prolapsed uterus.
- Sling operation done before for prolapse.

All cases were done under spinal anesthesia or general anesthesia.

After cleaning and draping, cervix was held with vullselum.Saline infiltration was done into paracervical space. Circumferential incision was taken around the cervix, pubo vesico – cervical ligament was cut and bladder pushed up. Both anteriorly and posteriorly peritoneum were opened.Uterosacral and cardinal ligaments were situated in close proximity to vaginal vault and were clamped, cut and ligated.Clamping the uterine vessels was easy vaginally as its relationship to isthmus remained unchanged.The application of next clamp depended upon the size of uterus.Different techniques like debulking, myomectomy, bisection, coring methods, which performed as and when required.

The evaluated parameters were patient’s age, parity, operative time, blood loss, uterine size ,complications (surgical complications), length of hospital stay.Vaginal hysterectomy considered successful if it was not abandoned or converted to abdomen

**III. Results**

The total number of hysterectomies included in our study was 45. Abdominal route was employed in 15 cases, NDVH employed in 15 cases and TLH employed in 15 cases, in which a comparative study was undertaken. Majority of the patients were in age group of 40-49(46%)with a median of 44 years.{Table 5 } There were 5 nulliparas included, out of which 2 underwent NDVH. {Table 6}. Commonest indication was fibroid uterus (55%) followed by dysfunctional uterine bleeding (24%) followed by adenomyosis (20%) and post meno pausal bleeding (6%).{Table 4}Fibroids in the vaginal hysterectomy group had sizes varying between 2 to 10 cms and were multiple with numbers varying from 2 to 5. Average operating time of NDVH surgery was within 30 mins in 9 cases(60%) were as in TAH it was between 46-60 mins in 7 cases(46%)And in TLH it was more than 60 mins in 12 cases(75%). {Table 2} . Most of the patients who underwent NDVH was done under spinal anesthesia (86%), TAH (67%) where as TLH done in 14(93%)under general anesthesia.{Table 1}.Post-op mobilization was much earlier in majority of patients who underwent NDVH 9 patients(60%) within 12-24 hours, TAH 6 patients (40%)within 36-48 hours and TLH 9 patients within 12-24 hours.{Table 3 }. Post-op complications were been comparatively between all 3 routes of surgery. The average duration of hospital stay was less compared to cases who underwent TAH or TLH.

TABLE 1

A n e s t h e s i a	N D V H ( n )	T A H	T L H
S p i n a l	3 9 ( 8 6 % )	3 0 ( 6 7 % )	0 3 ( 7 % )
G e n e r a l	0 6 ( 1 4 % )	1 5 ( 3 3 % )	4 2 ( 9 3 % )
T o t a l	4 5	4 5	4 5

TABLE 2

Duration of surgery(mins)	N D V H	T A H	T L H
< 3 0	2 7 ( 6 0 % )	3 ( 7 % )	0
3 0 - 4 5	1 2 ( 2 7 % )	1 5 ( 3 3 % )	3 ( 7 % )
4 6 - 6 0	6 ( 1 3 % )	2 1 ( 4 7 % )	6 ( 1 3 % )
> 6 0	0	6 ( 1 3 % )	3 6 ( 8 0 % )
T o t a l	4 5	4 5	4 5

TABLE 3

Post - op Hours	N	D	V	H	T	A	H	T	L	H		
6 - 1 2	0	9	(	20 % )	0		0	0	3	(	7 % )	
1 2 - 2 4	2	7	(	60 % )	0	9	(	20 % )	2	7	(	60 % )
2 4 - 3 6	0	6	(	13 % )	1	2	(	26 % )	0	9	(	20 % )
3 6 - 4 8	0	3	(	7 % )	2	4	(	53 % )	0	6	(	13 % )
> 4 8	0				0	9	(	20 % )	0			0
T o t a l	4			5	4			5	4			5

TABLE 4

Diagnosis	N	D	V	H	T	A	H	T	L	H		
F i b r o i d	2	4	(	53 % )	3	0	(	67 % )	2	1	(	47 % )
A d e n o m y o s i s	0	6	(	13 % )	0	6	(	13 % )	0	9	(	20 % )
D U B	1	2	(	27 % )	0	6	(	13 % )	1	5	(	33 % )
Post meno pausal bleeding	0	3	(	7 % )	0	3	(	7 % )	0			0
T o t a l	4			5	4			5	4			5

TABLE 5

Age in years	N	D	V	H	T	A	H	T	L	H		
3 0 - 3 9	1	2	(	27 % )	1	5	(	33 % )	1	2	(	27 % )
4 0 - 4 9	1	8	(	40 % )	2	1	(	47 % )	2	4	(	53 % )
5 0 - 5 9	1	2	(	27 % )	9		(	20 % )	9		(	20 % )
6 0 and above	3		(	6 % )	0			0				0
T o t a l	4			5	4			5	4			5

TABLE 6

Parity	N	D	V	H	T	A	H	T	L	H		
N u l l i p a r a	6		(	13 % )	3		(	7 % )	6		(	13 % )
M u l t i p a r a	3	6	(	80 % )	3	0	(	67 % )	3	0	(	67 % )
G r a n d m u l t i p a r a	3		(	7 % )	1	2	(	26 % )	9		(	2 % )
T o t a l	4			5	4			5	4			5

#### IV. Discussion

Vaginal hysterectomy for a non descend uteri is and art as well as a challenge to the gynecologist. Vaginal hysterectomy was the first minimally invasive approach for benign gynecologic conditions. We all are well aware about the fact that 70% to 80% of hysterectomies are performed by abdominal route and vaginal approach is usually used only in uterovaginal prolapse<sup>6</sup>. Usual limitations of vaginal hysterectomy in non descent uterus are enlarged uterus, previous pelvic surgeries, cervix flushed with vagina and need to perform oophorectomy<sup>3</sup>

Day by day previous contraindications to vaginal hysterectomy are getting waved out. With adequate vaginal access and technical skill, and good uterine mobility , vaginal hysterectomy can easily be achieved. The main supports of the uterus, the uterosacrals and cardinal ligaments, situated in close proximity to the vaginal vault can be easily divided to produce descent.

Multiparity , lax tissues due to poor involution following multiple deliveries and lesser tissue tensile strength afford a lot of comfort to vaginal surgeon even in the presence of significant uterine enlargement. Vaginal laxity, which was a pre requisite previously, is not a stringent bar these days. Rather it is the adequate vaginal access which is more important .

The second most important reason for the lower proportion of hysterectomies performed vaginally is the presence of uterine enlargement with leiomyomas, one of the most common indications.

However ,now big and bulky uteri can be dealt with by techniques, like bisection, myomectomy or morcellation. With meticulous dissection nulliparous uterus, cervix flushed with vagina , previous pelvic surgery are no longer contraindications to vaginal hysterectomy. With experience, operative time, blood loss and complications can be reduced.

This technique should be practiced more frequently and there should be an active effort in residency training programmes to teach this.

An ideal goal for the gynecological surgeon should be to perform at least 3 out of 5 hysterectomies vaginally,

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