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Original Research Article

Non Descent Vaginal Hysterectomy: A Study on Safety, Feasibility, Indications and Complications

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Abstract

Background: Hysterectomy is most common gynaecological surgery done for various indications varying from AUB, fibroid uterus to malignancies. It can be done by abdominal or vaginal route and with the help of laparoscopy. Laparoscopic assisted vaginal hysterectomy (LAVH) and total laparoscopic hysterectomy (TLH) although gaining more popularity now a days, though it is associated with higher cost, longer duration of operation, and need general anaesthesia moreover ureteric injury, bladder injury, and anesthetic complications were more in laparoscopic assisted hysterectomy (LAVH) group when compared to abdominal and vaginal hysterectomies. In addition LAVH was accomplished in twice the time required for vaginal hysterectomy. Most common indication for hysterectomy being excessive menstrual blood loss due to hormonal reasons or fibroids (size more often not exceeding 12 weeks). The need for safer and less expensive route of surgery would be a better option for these kind of patients. The aim of the study was to analyse the safety, feasibility and to study the indication and the complications of non-descent vaginal hysterectomy. ***Methodology*:** This is a retrospective cohort study. 120 women who underwent non-descent vaginal hysterectomy in the department of OBGY, Smt. Kashibai Navale Medical college and General Hospital, Pune, India were included in the study. Patient's records were retrieved. Data regarding patient's age, parity, indications for hysterectomy, and uterine size in weeks, previous surgeries in the past, duration of surgery and complications were recorded. Data collected on a semi structured proforma and the same was analysed using suitable statistical analysis. ***Results:*** A total of 120 cases were operated for different indications. Among the study participants majority were in the age group of 41-45 years (56 i.e 46.7%). Most common indication for hysterectomies were Abnormal uterine bleeding (AUB) (54 i. e 45%), followed by fibroid uterus (30 i.e 25%). The mean duration of surgery time taken was 60+10 minutes. Majority of the women who underwent hysterectomies had bulky uterus (70%). Complications were very few. Fever, UTI (urinary tract infection) and headache were seen in 5% cases. There were two cases of vault sepsis and one case of upper respiratory tract infection (URTI). In one patient vaginal hysterectomy could not be completed and abdominal hysterectomy was carried out. Mean hospital duration was 4 days. ***Conclusion:*** Vaginal hysterectomy appears to be safe and feasible in most of the women requiring hysterectomy for benign conditions with minimum complications and shorter hospital stay.

Keywords: Nondescent vaginal hysterectomy (NDVH), Indications, Complications.

INTRODUCTION

Hysterectomy, abdominal or vaginal is by far the most frequently performed elective major operation in Gynaecology. It is said that the two are not competitive procedures but each has its own place in operative armamentarium of the gynecologist. But vaginal hysterectomy should be the route of choice, because of short operative time and short hospital stay [1]. In this rapidly changing world, no one can stick to older methods and material. But still now the abdominal route is the one most commonly chosen; 66% of hysterectomy is performed abdominally, 22% are performed vaginally and 12% are performed laparoscopically [2]. So, the question may arise as to why it is that relatively few hysterectomies are performed vaginally.

Hysterectomy by vaginal route should be practiced in all cases where there is an indication for hysterectomy in benign non prolapse cases. Vaginal route has mainly been restricted to the treatment of uterine prolapse, but the reverse should happen because of fewer post operative complications, no abdominal incision hence cosmetically approved by patient which

allows earlier recovery and return to work. There is an ample opportunity to learn and master vaginal surgery.

The latest value study concluded that major haemorrhage, hematoma, ureteric injury, bladder injury, and anesthetic complications were more in laparoscopic assisted hysterectomy (LAVH) group when compared to abdominal and vaginal hysterectomies [3]. Vaginal hysterectomy is the approach of choice whenever feasible, based on its well-documented advantages and lower complication rates.

The decision to electively perform a salpingo oophorectomy should not be influenced by the chosen route of hysterectomy and is not a contraindication to performing a vaginal hysterectomy.

Now, we know that abdominal exploration is always comparatively a major surgery than the vaginal exploration and the significant complications like paralytic ileus, incisional hernia, infection etc. are significantly less with vaginal route [4].

The aim of our study is to explore the safety, feasibility, indications and complications of non descent vaginal hysterectomy in benign diseases of uterus and also maximizing the proportion of hysterectomy to be performed.

METHOD

The study was approved by the Institutional Ethics and Research Committee of Smt. Kashibai navale Medical College and Hospital Pune, Maharashtra India. A retrospective cohort study carried over period of 3 years in the department of Obstetrics and gynecology SKNMCGH, Pune, India. Patients requiring hysterectomy for benign gynecological disorders without prolapse (Abnormal uterine bleeding (AUB), fibroid, adenomyosis, pelvic inflammatory disease (PID) etc, who were posted for non-descent vaginal hysterectomy were included in the study.

Data regarding age, parity, indications, and previous surgeries in the past, and complications were recorded; exclusion criteria were uterus with severely restricted mobility, suspicion of malignancy, complex adnexal mass. General examination and systemic examination relevant investigations, pre and post-operative details carried out were recorded by medical records.

STATISTICAL ANALYSIS

The data collected was tabulated in SPSS. Descriptive statistics like numbers and percentages were enumerated for all categorical variables such as age, size of uterus etc. relevant graphs and charts were potted. All statistical analyses were performed using the SPSS statistical package, version 17.0 (SPSS).

RESULTS

A total of 120 cases were operated for different indications. Among the study participants majority were in the age group of 41-45 years with 56 (46.7%). Majority 66.6% (80) of the women were having parity of 2, which favours vaginal hysterectomy. There were 4 cases of previous lower segment caesarean section (LSCS)

Frequency distribution and age categorization of study participants

Age in years	Frequency (%)
35-40	34 (28.3)
41-45	56 (46.7)
45-50	22 (18.3)
51 and above	8 (6.7)
Total	120 (100)

Parity status of the study participants

Majority 80 (66.6%) of the women were having parity of 2.

Parity	Frequency (%)
Nulligravida	2 (1.66%)
1	4 (3.33%)
2	80 (66.6%)
3	32 (26.6%)
4 above	2 (1.66%)

Surgical indication for hysterectomy

Most common indication for hysterectomies were Abnormal uterine bleeding (AUB) with 54 (45%), followed by fibroid uterus 30 (25%), adenomyosis with 12 (10%), followed by polyp 10 (8.3%), cervical intra epithelial neoplasia (CIN) 4 (3.3%) and others 10 (8.3%) which included each one diseases like postmenopausal bleeding, pyometra, chronic cervicitis and cases of endometrial hyperplasia with atypia.

Indication	Total (%)
AUB	54 (45)
Fibroid	30 (25)
Adenomyosis	12 (10)
Polyp	10 (8.3)
CIN	4 (3.3)
Others	10 (8.3)

Size of uterus	Number
Bulky	84 (70)
8-12	24 (20)
Upto 8 weeks	12 (10)

Size of the uterus among the hysterectomised patients

Majority of the women who underwent hysterectomies had bulky uterus with 84 (70%), about

24 (20%) had uterus size of 8-12 weeks, whereas 12 (10%) had uterus size of up to 8 weeks.

Morcellation technique for vaginal hysterectomy

Wedge resection	**5 %**
Bisection + wedge resection	6.6%
Bisection	20%
Bisection + wedge resection + myomectomy	16.5 %

Operating time & blood loss

Operating time in minutes	**Frequency**
0-60	29
61-90	87
91-120	4
Blood loss	
0-100 ml	45
101-150 ml	55
151-200 ml	18
=>201 ml	2

Post-operative complications among the study subjects

Complications were very few. Fever, UTI (urinary tract infection) and headache were seen in 6 (5%) cases. There was one case of vault sepsis and 2 cases of upper respiratory tract infection (URTI). There were no cases of bladder injury, bowel injury and haemorrhage.

Fever	**6 (5%)**
UTI	6 (5%)
Vault sepsis	1 (0.8%)
URTI	2 (1.66%)
Spinal headache	6 (5%)
Vaginal cuff cellulitis	1 (0.8%)

The NDVH alone was done in 108 (90%) of the women, adjuvant surgical procedures like salpingectomy and salpingo-oopherectomy were required in less than 5% of the patients. In one patient vaginal hysterectomy could not be completed and abdominal hysterectomy was carried out. Mean hospital duration was 4 days. Readmission not required in any patient.

DISCUSSION

It is well known fact that 70-80% of hysterectomies done for benign condition are through abdominal route. Vaginal hysterectomies are usually performed for prolapsed case. It was due to inadequate technical skills and enlarged uterus makes the vaginal route difficult. But with newer technique like bisection, myomectomy and morcellation, it has become easy to perform vaginal hysterectomy even in enlarged uterus in benign case [5].

The common limitations for vaginal hysterectomy in non-prolapsed uterus include size of the uterus, nulliparity, previous pelvic surgery or lower segment caesarean section (LSCS), pelvic adhesions and endometriosis [6]. The factors that may influence the route of hysterectomy for any surgical indication include uterine size, mobility, accessibility, and pathology confined to the uterus (no adnexal pathology or known or suspected adhesions) [7].

This is a retrospective cohort study done. 120 cases of non-descent vaginal hysterectomy were taken in that 119 were done successfully, while one case was converted to abdominal route. It was a 12 weeks size uterus with adenomyosis, there was difficulty in opening the anterior and posterior pouches because of extensive adhesions; it turned out to be Abdominal TB for which she was started on AKT. Most common age group underwent NDVH was 41-45 years, with 56 (46.7%). Majority 80 (66.6%) of the women were having parity of 2, which favours vaginal hysterectomy [10]. There were 4 cases of previous LSCS. There was no complication during these cases. Hence previous LSCS is no more a contraindication for NDVH. The mean duration of surgery time taken was 61-90 minutes; comparatively faster operating technique resulted in shorter hospital stay and less post operative morbidity as has been reported by other study [11, 12]. Most common indication for NDVH in our study was AUB not responding to medical treatment 54 (45%) and second most common indication was fibroid uterus 30 (25%). Shital Mehta et al., Bhadra B et al. also reported AUB as a most common indication [8, 9].

Majority of the women who underwent hysterectomies had bulky uterus with 84 (70%), about 24 (20%) had uterus size of 8-12 weeks, whereas 12 (10%) had uterus size of upto 8 weeks. In bigger size uterus morcellation technique like bisection, wedge resection and myoma nucleation was done. The commonest morcellation technique was bisection with 24 (20.0%), the combination of bisection+wedge, resection+myomectomy was 10 (16.5%) and in 62 (51.6%) of the procedures did not required any morcellation. Davies et al., and Mazdisean et al., also resorted to these techniques [15, 16].

Adjuvant surgeries like adnexal structures removal was done in our study. In 4 cases salphingectomy was done for hydrosalphinx. In 6 cases salphingo-oophorectomy was done for benign ovarian cyst.

Complications were very few. Fever, UTI and headache were seen in 6 (5%) cases. There was one case of vault sepsis and vaginal cellulitis each and two case of upper respiratory tract infection (URTI).

No patient suffered any visceral injury during the procedure, whereas injuries to ureter, bladder and intestine have been reported in other studies [13, 14].

CONCLUSION

It can be concluded that non-descent vaginal hysterectomy has many advantages which include shorter hospital stay and faster convalescence. Vaginal hysterectomy is the least invasive with fewer complications and most economical route for hysterectomy. As day by day the previous contraindications to vaginal hysterectomy are getting out, so every gynecologist should be familiar with doing non descent vaginal hysterectomy and it should be the gynaecologists' first choice for hysterectomy.

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Ethical approval: The study was approved by the Institutional Ethics Committee.

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