

DOI: <http://dx.doi.org/10.18203/2320-1770.ijrcog20161885>

Research Article

Nondescent vaginal hysterectomy: analysis of indications and complications

Shashikala B Patil*, Saravana A, Savita S Patil, H. S. Shankaregowda

Department of Obstetrics and Gynecology, BGS Global Institute of Medical sciences, Bengaluru, Karnataka, India
India

Received: 04 June 2016

Accepted: 08 June 2016

***Correspondence:**

Dr. Shashikala B Patil,

E-mail: drshashika@gmail.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: Hysterectomy is the commonest major surgical procedure performed in gynecology. 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. 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. In addition LAVH was accomplished in twice the time required for vaginal hysterectomy. The objective of the study was to analyse the indication and to study the complications of nondescent vaginal hysterectomy.

Methods: This is a retrospective cohort study. 60 women who underwent nondescent vaginal hysterectomy in the department of OBG, B.G.S. Global Institute of Medical Sciences, Bangalore, India were included in the study. Patients' records were retrieved. Data regarding patient's age, parity, indications for hysterectomy, 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 60 cases were operated for different indications. Among the study participants majority were in the age group of 41-45 years with 28 (46.7%). Most common indication for hysterectomies were dysfunctional uterine bleeding (DUB) with 27 (45%), followed by fibroid uterus 15 (25%). The mean duration of surgery time taken was 50+10minutes. Majority of the women who underwent hysterectomies had bulky uterus with 42 (70%). Complications were very few. Fever, UTI (urinary tract infection) and headache were seen in 3 (5%) cases. There was one case 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.

Conclusions: Vaginal hysterectomy is the least invasive with fewer complications and most economical route for hysterectomy. Nondescent vaginal hysterectomy should be the gynaecologists first choice for hysterectomy.

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

INTRODUCTION

Hysterectomy is one of the most commonly performed gynaecological operative procedures. Hysterectomy is the second most common operation performed by the gynaecologists next only to caesarean section.^{1,2} It can be

done by several ways like abdominal, vaginal, laparoscopic route and with robotic assistance. Skill and experience of the surgeon plays an important role in determining approach route. When choosing the route and method of hysterectomy, the physician should take into consideration how the procedure may be performed most safely and cost-effectively to fulfil the medical

needs of the patient. Most literature supports the opinion that, when feasible, vaginal hysterectomy is the safest and most cost-effective route by which to remove the uterus.³ The decision to electively perform a salpingoophorectomy should not be influenced by the chosen route of hysterectomy and is not a contraindication to performing a vaginal hysterectomy.

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.⁴ Vaginal hysterectomy is the approach of choice whenever feasible, based on its well-documented advantages and lower complication rates.

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.⁵ The objective of the study was to analyse the indications for nondescent vaginal hysterectomy (NDVH) for benign gynaecological condition and to study the complications of NDVH.

METHODS

The study was approved by the Institutional Ethics and Research Committee of Medical College and Hospital Bangalore, India. A retrospective cohort study carried over period of six months from September 2015 to February 2016 in the department of Obstetrics and gynecology BGS Global Institute of Medical sciences Bangalore, India. Patients requiring hysterectomy for benign gynecological disorders without prolapse (dysfunctional uterine bleeding (DUB), 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, 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 60 cases were operated for different indications. Among the study participants majority were in the age group of 41-45 years with 28 (46.7%). Majority 42 (70%) of the women were having parity of 1-2, which favours vaginal hysterectomy (Figure 1). There were 4 cases of previous lower segment caesarean section (LSCS), 2 cases of previous 1 LSCS and 2 cases of previous 2 LSCS.

Table 1: Frequency distribution and age categorization of study participants.

| Age in years | Frequency (%) |
|--------------|---------------|
| 35-40 | 17 (28.3) |
| 41-45 | 28 (46.7) |
| 45-50 | 11 (18.3) |
| 51 and above | 4 (6.7) |
| Total | 60 (100) |

Majority 42 (70%) of the women were having parity of 1-2, about 16 (26.6%) had parity of 3-4 and only 2 (3.4%) had parity of ≥ 5 (Figure 1).

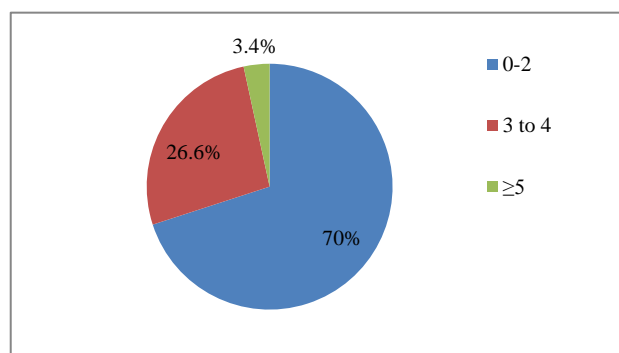


Figure 1: Parity status of the study participants.

The mean duration of surgery time taken was 50+10 minutes, whereas about 10 (16.7%) required only 30 minutes and 3 (5.0%) of surgeries needed 90 minutes.

Most common indication for hysterectomies were dysfunctional uterine bleeding (DUB) with 27 (45%), followed by fibroid uterus 15 (25%), adenomyosis with 6 (10%), chronic pelvic inflammatory disease (PID) in 5 (8.3%), cervical intra epithelial neoplasia (CIN) 2 (3.3%) and others 5 (8.3%) which included each one diseases like postmenopausal bleeding, pyometra, endometrial polyp and 2 cases of endometrial hyperplasia with atypia (Table 2).

Majority of the women who underwent hysterectomies had bulky uterus with 42 (70%), about 12 (20%) had uterus size of 8-14 weeks, whereas 3 (5%) had uterus size of up to 8 weeks and also 3(5%) had more than 14 weeks size of uterus (Table 3).

Table 2: Surgical indications for hysterectomy.

| Indications | Total (%) N=60 |
|--------------------------------|-------------------|
| Dysfunctional uterine bleeding | 27 (45) |
| Fibroid uterus | 15 (25) |
| Adenomyosis | 6 (10) |
| Chronic PID | 5 (8.3) |
| CIN 2 | 2 (3.3) |
| Others | 5 (8.3) |

Table 3: Size of the uterus among the hysterectomised patients.

| Size of uterus | Number (N=60) | Percentage(%) |
|----------------|---------------|---------------|
| Bulky | 42 | 70.0 |
| 8-14 weeks | 12 | 20.0 |
| Upto 8 weeks | 3 | 5.0 |
| ≥14 weeks | 3 | 5.0 |

The commonest morcellation technique was bisection with 12 (20.0%), the combination of bisection+wedge resection+myomectomy was 5 (16.5%) and in 31 (51.6%) of the procedures did not required any method for morcellation (Figure 2).

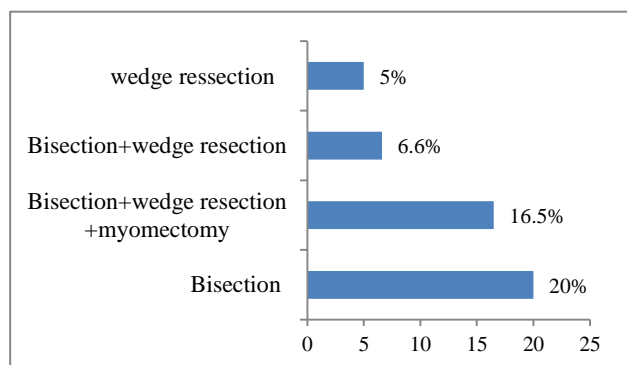


Figure 2: Morcellation technique for vaginal hysterectomy.

Complications were very few. Fever, UTI (urinary tract infection) and headache were seen in 3 (5%) cases. There was one case of vault sepsis and one case of upper respiratory tract infection (URTI) (Table 4). There were no cases of bladder injury, bowel injury and haemorrhage.

Table 4: Post-operative complications among the study subjects.

| Post operative complications | Total (N=60) |
|------------------------------|--------------|
| Fever | 3 (5 %) |
| UTI | 3 (5%) |
| URTI | 1 (1.66%) |
| Vault sepsis | 1 (1.66 %) |
| Headache | 3 (5%) |

The NDVH alone was done in 54 (90%) of the women, adjuvant surgical procedures like salpingectomy and salpingo-oophorectomy 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.

DISCUSSION

In the absence of uterine prolapse, most gynecologists prefer the abdominal to the vaginal route of hysterectomy. 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. 60 cases of nondescent vaginal hysterectomy were taken in that 59 were done successfully, while one case was converted to abdominal route. It was a 16-18 weeks size fibroid uterus, there was difficulty in reaching the upper pedical because of big fibroid and adhesion. Most common age group underwent NDVH was 41-45 years, with 28 (46.7%). Majority 42 (70%) of the women were having parity of 1-2, which favours vaginal hysterectomy. There were 4 cases of previous LSCS, 2 cases of previous 1 LSCS and 2 cases of previous 2 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 50±10minutes, whereas about 10 (16.7%) required only 30 minutes and 3 (5.0%) of surgeries needed 90 minutes. Most common indication for NDVH in our study was DUB not responding to medical treatment 27 (45%) and second most common indication was fibroid uterus 15 (25%). Shital Mehta et al, Bhadra B et al also reported DUB as a most common indication.^{8,9}

Majority of the women who underwent hysterectomies had bulky uterus with 42 (70%), about 12 (20%) had uterus size of 8-14 weeks, whereas 3 (5%) had uterus size of upto 8 weeks and also 3 (5%) had more than 14 weeks size of uterus. In bigger size uterus morcellation technique like bisection, wedge resection and myomae nucleation was done. The commonest morcellation technique was bisection with 12 (20.0%), the combination of bisection+wedge resection+myomectomy was 5 (16.5%) and in 31 (51.6%) of the procedures did not required any morcellation.

Adjuvant surgeries like adnexal structures removal was done in our study. In 2 cases salpingectomy was done for hydrosalpinx. In 2 cases salpingo-oophorectomy was done in 2 cases for benign ovarian cyst.

Complications were very few. Fever, UTI and headache was seen in 3 (5%) cases. There was one case of vault sepsis and one case of upper respiratory tract infection (URTI).

CONCLUSION

Vaginal hysterectomy is the least invasive with fewer complications and most economical route for hysterectomy. Nondescent vaginal hysterectomy should be the gynaecologists' first choice for hysterectomy.

Funding: No funding sources

Conflict of interest: None declared

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

REFERENCES

1. Bernstein SJ, Mcglyn EA, Siu AL. The appropriateness of hysterectomy. a comparison of care in seven health plans. Health maintenance organization quality of care consortium. J Am Med Asso. 1993;269(18):2398-402.
2. Grave EJ, Gillum BS. 1994 Summary national hospital discharge survey. Advance data. 1996;278:2-12.
3. 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;8(3):CD003677.
4. Choosing the route for hysterectomy for benign disease. ACOG committee opinion. The American college of obstetricians and Gynecologists.2009:444.
5. Del FG, Soligo M, Rossi A, Del FC. Vaginal and abdominal hysterectomy: comparison and perspectives. Minerva Ginecol. 1996;48(5):181-91.
6. Paparella P, Sizzi O, Rossetti A, Benedittis F, Paparella R. Vaginal hysterectomy in generally considered contraindications to vaginal surgery. Arch Gynecol Obstet. 2004;270(2):104-9.
7. Kovac SR, Barhan S, Lister M, Tucker L, Bishop M, Das A. Guidelines for the selection of the route of hysterectomy: application in a resident clinic population. Am J Obstet Gynecol. 2002;187(6):1521-7.
8. Mehta ST, Trivedi YN, Bhalodia P. Role of non-descent vaginal hysterectomy in advancing gynaecological practice. NHL J Med Sci. 2014;3(1):55-8.
9. Bhadra B, Choudhury AP, Tolasaria A, Nupur N. Non descent vaginal hysterectomy (NDVH): personal experience in 158 Cases. Al Ameen J Med Sc. 2011;4(1):23-7.

Cite this article as: Patil SB, Saravana A, Patil SS, Shankaregowda HS. Nondescent vaginal hysterectomy: analysis of indications and complications. Int J Reprod Contracept Obstet Gynecol 2016;5: 2126-9.