



NON DESCENT VAGINAL HYSTERECTOMY IN BENIGN UTERINE CONDITIONS - RETROSPECTIVE ANALYSIS

Obstetrics & Gynaecology

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ABSTRACT

Introduction: Hysterectomy is commonly performed gynaecological surgery for various indications. It can be done by abdominal, vaginal or laproscopically. NDVH is removal of the uterus through vaginal route without uterine descent. **Aim:** To study the ability of nondescent vaginal hysterectomy done for benign uterine conditions. **Objectives:** 1. To study the intraoperative and post-operative complications encountered during NDVH and their management. 2. To assess the operative time, intraoperative blood loss, and post-operative hospital stay. **Material And Methods:** 65 cases were analysed from OT records. All relevant information regarding menstrual history, obstetric history and details regarding clinical examination was collected from casesheets from record room and cases were analysed regarding indication for hysterectomy, size of uterus, mode of delivery(NVD,LSCS). Intraoperative and post-operative complications were analysed. Duration of postoperative hospital stay was analysed. Patients were asked to come for follow up 15 days after discharge. **Results:** 90.7%(59) of NDVH cases were discharged without complications suggesting low morbidity associated with the procedure. Hemorrhage requiring blood transfusion was found in 4.6 % of cases. conversion to emergency laparotomy due to bladder injury is seen in 1.5% cases. Conversion to TAH due to difficulty in opening pouch of douglas is seen in 3.07%. Post-operative complications such as vaginal discharge seen in 7.6%, fever was seen in 6 % of cases. 80% of patients post-operative hospital stay was 3 to 4 days. **Conclusion:** The present analysis conclude that patients requiring hysterectomy for benign non prolapsed cases can be offered option of non descent vaginal hysterectomy which has quicker recovery, shorter hospital stay and lesser postoperative complications.

KEYWORDS

operative complications, study, NDVH.

INTRODUCTION

Hysterectomy is commonly performed gynaecological surgery for various indications. It can be done by by abdominal, vaginal, or laproscopically^{1,6}. Majority of hysterectomies are performed for benign reasons. Vaginal route should be preferred wherever possible as it has less morbidity, lesser hospital stay, and better patient satisfaction^{2,3}. vaginal hysterectomy is valid alternative to the abdominal and laproscopic approach with fewer complications, shorter recovery period, hospital stay and done under spinal anaesthesia^{4,5}. In addition, studies also suggest that vaginal hysterectomy can also be performed successfully even in women with an enlarged uterus of size upto 16 wks, nulliparity, or history of pelvic surgery⁷. Most common indication for hysterectomy being excessive blood loss due to hormonal reasons or fibroids^{8,14}. The need for safer and less expensive route of surgery would be better option for this kind of patients⁹. Abdominal exploration is always comparatively a major surgery than the vaginal exploration and the significant complications like paralytic ileus, incisional hernia, infections are significantly less with vaginal route¹⁰. Total laparoscopic hysterectomy requires highly skilled surgeon, endoscopic equipments, trained medical and paramedical staff, long duration of operation and high cost¹¹. Vaginal hysterectomy can be performed under regional anaesthesia, with lower health care costs, with lesser complications and faster recovery¹². NDVH has a very good cosmetic benefit as it is scarless procedure¹³. NDVH is the least invasive technique for the removal of uterus, it is important for every gynaecologist to master this technique and thus the need for expanding the indications for NDVH¹⁵.

Type Of Study

Retrospective Analytical Study.

Place Of Study

The study was conducted at the Department of OBGY, Dr.PSIMS& RF.

Study Duration

The study duration was from september1, 2021, to august 31, 2022 (1year).

Sample Size

Sixty Five.

Inclusion Criteria

Patients who had given informed consent were included in the study.

Size of uterus < 16 weeks

Leiomyoma

Adenomyosis

Endometrial hyperplasia

AUB (Ovary)

Exclusion Criteria:

Endometriosis

Uterine prolapse

Restricted mobility of uterus

Genital malignancy

Size of uterus >16 weeks,

Ovarian tumors and adnexal masses.

Procedure

During the study period 65 cases of NDVH were done. All the relevant information was collected from the case sheets from record room regarding - patient's age, parity, socioeconomic status, menstrual history, obstetric history, any previous abdominal/pelvic surgery, Per abdominal examination, gynaecological examination - per speculum examination and bimanual examination for size of the uterus, mobility, descent of the uterus, and the presence of any adnexal pathology. Pelvic ultrasonography findings regarding uterine size, type of fibroids, any adnexal pathology. Pap smear and endometrial biopsy done in all patients. Written and informed consent was taken from all patients and their relatives after explaining the procedure. consent for conversion to abdominal hysterectomy if needed and chances of bladder and bowel injury was taken in patients with previous LSCS. Under aseptic precautions betadine vaginal pessary was kept in the posterior fornix on the day before the surgery to all the patients. The vagina was infiltrated with 10-30 ml normal saline with 1:100,000 dilutions of adrenaline at cervicovaginal junction. A semi circular incision was made at the junction of cervix and vagina both anterior and posteriorly. Anterior and posterior pouches was opened. After ligating bilateral uterosacral and mackenrodt's ligaments, bilateral uterine vessels were ligated. The next step of hysterectomy depended on the size of the uterine mass and included use of various debulking methods such as bisection, myomectomy, coring or a combination of these if required. The uterus was removed after clamping the round ligaments and utero-ovarian ligaments. Hemostasis achieved. Vault suspended and closed. Intraoperative complications were noted. Operative time was calculated from the beginning of the incision at the cervicovaginal junction to the closure of the vaginal vault. Blood loss is calculated by noting the amount of blood collected in the suction bottle and soakage of mops. Post-

operative catheterization with foleys catheter was done in all patients, which was removed in most of the cases on post-operative day 1. Removed specimen of uterus with cervix, with/without adnexa was sent for histopathological examination. Post-operative complications such as fever, pain, vaginal discharge, vaginal bleeding, UTI, and diarrhea were noted. Postoperative hospital stay was calculated from the day of operation to the day of discharge. All the patients were asked to follow up after 15 days.

RESULTS

65 cases were analysed. Among them 13 cases were of previous lower segment caesarean section (LSCS). Common indication for NDVH is fibroid uterus. In 90.7%(59) of cases there was no intraoperative complications. Intraoperative complication were bladder injury, difficulty in opening pouch of douglas, hemorrhage. Conversion to emergency laparotomy due to bladder injury is seen in 1 case(1.5%) - 14 wks size fibroid uterus with 2 previous LSCS. Conversion to TAH due to difficulty in opening pouch of douglas is seen in 2 cases (3.07%) these are nulligravida - 12 wks uterus with adenomyosis and P2L2 (NVD) with 12 wks size fibroid uterus with adhesions. Hemorrhage requiring blood transfusion was found in 4.6%. Among 36 cases of fibroid uterus 28 cases had multiple intramural fibroids, 6 cases had both intramural and submucosal fibroids and 2 with only submucosal fibroids. Post-operative complications observed in our study were due to vaginal discharge, unexplained fever, postoperative pain. None of these complications required specific interventions. They resolved with regular treatment without any sequelae. Average hospital stay was 3 to 4 day. Prolonged hospital stay (1 wk) in one patient due to intraoperative bladder injury, patient had no complaints at follow up and recovered well with no morbidity. During this study period 7 cases had total abdominal hysterectomy with indication – subserosal fibroid, broad ligament fibroid and with size of uterus > 16 wks.

Frequency Distribution And Age

AGE IN YEARS	Number of patients	Percentage
35 – 40	12	18.46
41 – 45	32	49.23
45 – 50	18	27.69
>51	3	4.62

Parity

PARITY	Number of patients	Percentage
Nulligravida	3	4.62
1	13	20
2	41	63
3	8	12.3

Size Of Uterus

SIZE OF UTERUS	Number
14-16 wks	12
12-14 wks	19
10-12 wks	26
6-10 wks	8

Indications For NDVH

INDICATIONS	No. of patients	Percentage
Leiomyoma	36	55.38%
Adenomyosis	13	20%
Leiomyoma+ Adenomyosis	5	7.69%
Endometrial hyperplasia	9	13.84%
AUB (Ovary)	2	3.07%

Out of 65 patients included in study 13 had history of previous LSCS

Etiology	No. of patients	Percentage
Leiomyoma	10	15.38%
Adenomyosis	1	1.538%
AUB (O)	1	1.538%
Endometrial hyperplasia	1	1.538%

Out of 65 specimens 11 were removed by bisection, coring and myomectomy

Etiology	No. of patients	Percentage
Leiomyoma	7	10.769%
Adenomyosis	2	3.076%
Leiomyoma + Adenomyosis	1	1.538%
Endometrial hyperplasia	1	1.538%

Intraoperative Complications

Intraoperative complications	Number of patients	Percentage
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Bladder injury (laparotomy)	1	1.5%
Conversion to TAH	2	3.07%
Hemorrhage requiring transfusion	3	4.6%
None	59	90.76%
Total	65	100

Intraoperative Parameters

Parameters	
Average operative time	90 mins
Average blood loss	180ml
Average hospital stay	3-4 days

Post Operative Complications

Post operative complications	Number of patients	Percentage
Vaginal discharge	5	7.69%
Fever	4	6.15%
Post operative pain	5	7.69%
UTI	0	0%
Diarrhoea	0	0%

DISCUSSION

Among women undergoing hysterectomy for benign disease, non descent vaginal hysterectomy appears to be superior to laparoscopic and abdominal hysterectomy as it is associated with faster return to normal activities. It can be performed under regional anaesthesia with lower healthcare costs, with lesser complications, faster recovery and it is scarless surgery. However the success of the procedure depends on the selection of case and the learning curve of the technique and surgical skills. The factors which influence route of hysterectomy include parity, previous pelvic surgery, uterine size, mobility, uterine descent. Lax tissues following multiple deliveries and decreased tensile strength provide comfort to the surgeon even in presence of uterine enlargement, thus multiparity is a favourable factor for NDVH. With newer techniques like bisection, myomectomy and coring, it has become easier to perform vaginal hysterectomy even in enlarged uterus. Conversion to emergency laparotomy due to bladder injury is seen in 1.5% cases. Conversion to TAH due to difficulty in opening pouch of douglas is seen in 3.07% cases. Hemorrhage requiring blood transfusion was found in 4.6%. vaginal discharge is most common post-operative complication - 7.6 % of patient had vaginal discharge, post-operative pyrexia is seen in 6% of patient. None of these complications required specific interventions. They resolved with regular treatment without any sequelae. The peritoneum is opened to a very little extent and minimal handling of intestines is required in NDVH. Hence, post-operative ileus is much less common in NDVH and so oral intake and mobilization are earlier, therefore reducing the hospital stay. Average hospital stay is 3 to 4 days, prolonged hospital stay of one patient due to intraoperative bladder injury. Morbidity is less as abdominal incision is avoided. Post-operative complications of NDVH are minimal.

The average operative time was 90 mins. It was related to the size of the uterus and intra operative complication like bladder injury and the skill of operating surgeon. Increased uterine size was associated with increased operative time. Increased operative time was mostly due to intraoperative complications and bigger size of the uterus. Patients were discharged and asked to come for follow up after 15 days to OPD and they had no complaints.

CONCLUSION

In 90.7 % of NDVH cases, no intraoperative complications were found suggesting low morbidity associated with the procedure. Post-operative complications observed were minimal with no deterioration on the general condition of the patient. None of them required specific intervention. 80% of cases post-operative hospital stay was 3-4 days which indicate early discharge and fast recovery of the patient. Hence, NDVH can be successfully performed in benign uterine conditions. NDVH can be accomplished with less operative time, minimal blood loss, and minimal intraoperative complications. Post-operative complications following NDVH are minimal and subside without sequelae. NDVH should, therefore, be considered as the primary route for all hysterectomies in the absence of prolapse when indicated.

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