

Safety of non-descent vaginal hysterectomy

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Abstract

The aim of our study is exploring the safety and feasibility of nondescent vaginal hysterectomy in benign diseases of uterus and also maximizing the proportion of hysterectomy performed vaginally. This was a prospective descriptive study done in obstetrics and gynaecology department of Khulna medical college hospital and two private clinic in Khulna and Satkhira. Over a period of 3 years from January 2012 to December 2014, a total of 56 cases underwent hysterectomy done vaginally for benign diseases. The most common age group affected was 41-50 years (64.28%) and second common group was below 40 years. Majority (73.21%) of the patients was multiparas and 6 weeks size affected uterus was 41.07%. Most common indication for NDVH was dysfunctional uterine bleeding (39.29%) and fibroid uterus was 35.71%. Among 56 patients 25 cases needed dcbulking technique (44.64%) of which bisection was 32.14%. Maximum (53.57%) operation was completed within 61 to 90 minutes. Maximum blood loss of 201 ml or more was in 3 cases but only 5 patients needed blood transfusion. Among 56 patients. 5 (8.92%) patients suffered from various forms of complications but urinary fistula was nil. So it can be concluded that non descent vaginal hysterectomy has many advantages which include short hospital stay and fast convalescence.

Introduction

Hysterectomy, abdominal or vaginal is by far the most frequently performed elective major operation in Gynaecology.¹ 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.³ 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.⁴ There is an ample opportunity to learn and master

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vaginal surgery.¹ Vaginal hysterectomy has been found to be associated with less febrile morbidity, less bleeding necessitating blood transfusion, shorter hospital stay, faster convalescence in comparison to abdominal hysterectomy. Training and experience in vaginal surgery appear to be the major determinants of the type of hysterectomy performed.⁵

The aim of our study is to exploring the safety and feasibility of nondescent vaginal hysterectomy in benign diseases of uterus and also maximizing the proportion of hysterectomy to be performed vaginally. Gynecologist should need to be familiar with the surgical techniques for dealing with non prolapsed uterus.

Material and methods

This was a prospective descriptive study done in obstetrics and gynecology department of Khulna medical college hospital and two private clinics in Khulna and Satkhira over a period of 3 years from 1st January 2012 to December 2014. A total of 56 cases admitted to gynecology ward requiring hysterectomy for benign diseases. A preformed questionnaire was made for data collection. A detailed history from the patient was taken. A

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thorough examination was done including general examination, perabdominal examination for any previous surgery, local examination of vulval part, per speculum & per vaginal examination for size and position of uterus, degree of descent, mobility of uterus, cystocele, rectocele, decubitus ulcer & also vaginal capacity. The patients were thoroughly investigated by routine investigations eg: complete blood count, complete haemogram, urine analysis, blood grouping & Rh typing, Blood sugar, Serum creatinine, VIA test, ECG, Chest X ray, ultra sonogram of abdomen & pelvis, HBsAg. A good bowel preparation was taken in every case to gain good exposure and avoid bowel injury. A written informed consent was taken from all patients after explaining the procedure. After all preparation majority of the patients were operated under spinal anesthesia.

During vaginal hysterectomy, a circular incision was given around the cervix and dissection was done properly. The vesicocervical ligament was cut, vesicocervical space exposed and bladder mobilized appropriately. The pouch of Douglas was exposed next. After that the Mackenrodt's ligament and utero sacral ligament was cut then the uterine vessels were cut. Lastly the round ligament, fallopian tube, ovarian ligament or infudibulopelvic ligament were cut and sutured. Operating time was calculated from the start of incision at crevico vaginal junction to the placement of vaginal pack. Blood loss was calculated by counting the number of mops used during surgery. On an average 1/4th soaked mops contained 20ml, 1/2 soaked 40ml and fully soaked 100 ml. This was rough estimation of blood loss. Intra operative complication like injury to bowel, bladder, ureter & hemorrhage was noted.

Post operatively all patients were meticulously followed. Post operative Foley's catheter was kept for 24 hours in all cases. All patients received prophylactic antibiotics for 5 days. On 3rd post operative day, routine hemoglobin estimation & urine analysis were done. Post operative complication like fever, urinary tract infection and vaginal cuff cellulites were noted. All the patients were discharged after 5-7 days and advised to follow up two weeks after discharge to note their well being or any late complication like vaginal discharge, urinary/bowel symptoms. Statistical analysis was done by SPSS.

Result

Most common age group affected was 41-50 years (64.28%), second most common was below 40 years (table I) This table also showed the parity distribution and size of the uterus of the affected person. The most common parity affected was multipara, (73.21 %) and 6 weeks size affected

Table I
Characteristics of patients

Age (years)	Number of patients	%
35-40	15	26.79
41-45	18	32.14
46-50	18	32.14
>50	5	8.93
Parity	Number of patients	%
Nuligravidae	5	8.93
Primipara	10	17.86
Multipara	41	73.21
Size of the uterus	Number of patients	%
6 Wks	23	41.07
8 Wks	8	14.29
10 Wks	19	33.93
12 Wks	5	8.93
14 Wks	1	1.78

Table II
Indication for surgery

Indication	Number	%
DUB	22	39.29
Fibroid=<16 wks	20	35.71
Adenomyosis	8	14.28
Cervical dysplasia	2	3.57
Cervical polyp	2	3.57
Chronic Cervicitis	1	1.79
Chronic Pelvic Infection	1	1.79

uterus was 41.07% with second most common was 10 weeks size (33.93%). Table II showed the commonest indications for nondescent vaginal hysterectomy. In our study, among 56 cases of NDVK most common indication was dysfunctional uterine bleeding (39.29%) with adequate medical treatment failure; second most common was fibroid uterus (35.71%).

Table III
Distribution of debulking technique used

Technique	Cases	%
Bisection	18	32.14
Myomectomy	4	7.14
Morcellation	3	5.36

In our study among 56 patients, 25 cases needed debulking technique (44.64%), of which commonest technique was bisection (32.14%) and second most common was myomectomy (Table III). Table IV showed the operating time and blood loss. Operation could be completed within 61-90 minutes in 53.57% cases and within 60 minutes in 39.29%. Maximum (53.57%) cases of blood loss was 101-150 ml and within 151-200ml blood loss

was in 25% case. Only 5 patients needed blood transfusion. In our study among 56 cases, 5 patients (8.92%) suffered from various forms of complications (Table IV). But urinary tract fistula was nil.

Table IV
Operating time & blood loss

Operating time in min	Number	%
0-60	22	39.29
61-90	30	53.57
91-120	4	7.14
Blood loss		
0-100 ml	9	16.07
101-150 ml	30	53.57
151-200 ml	14	25
=> 201 ml	3	5.36

Table V
Post operative complications

Complication	Number	%
Fever	2	3.57
Urinary Tract Infection	1	1.78
Vaginal cuff cellulites	1	1.78
Vaginal bleeding	1	1.78
Urinary tract fistula	Nil	00

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.⁶ In our study, 25 cases (44.64%) needed debulking technique among which most commonly practiced technique was bisection and it was also more or less compatible with Banasree Bhadra et al. study 63.63%.⁷

With adequate vaginal access and technical skill, good uterine mobility vaginal hysterectomy can easily be achieved. The main supports of the uterus, the uterosacral and cardinal ligaments situated in close proximity to vaginal vault can be easily divided to produce descent.⁸ Multiparity, lax tissue due to poor involution following multiple deliveries and lesser tensile strength afford a lot of comfort to vaginal surgeon even in presence of significant uterine enlargement. In our study maximum patients (73.21%) were having

multiparity and size of the uterus above 10 weeks was 44.64%. Though it is not compatible with Bangladeshi study, however now big and bulky uteri can be dealt with the techniques like bisection, myomectomy or morcellation. Davies et al and Mazdisean et al also resorted to these techniques.^{5,9,10} We could remove uterus up to 14 weeks pregnancy size vaginally without any increase in surgical complication. Das & Sheth use ultrasonographic calculation of uterine volume for assessing the feasibility of vaginal hysterectomy.¹¹ They needed debulking for uterus with a volume of more than 300 cm².

In our study, most of the patients were in the age group of 41-50 years of age (64.28%) and were multiparity, which were compatible with Shreyaa Sriram et. al study.¹² The commonest indication for vaginal hysterectomy in non decent cases was DUB followed by fibroid uterus and adenomyosis which was also compatible with Shreyam Sriram et al Study.¹²

In this study, most of the nondescent vaginal hysterectomy needed 1.5 hours, comparatively faster operating technique resulted in shorter hospital stay and less post operative morbidity as has been reported by other study.^{13,14}

There was no wound infection and no patient suffered any visceral injury during the procedure, whereas injuries to ureter, bladder and intestine have been reported in other studies.¹⁵⁻¹⁶ This may be due to all hysterectomies were performed by well trained experienced gynecological team. Only 3.57% (2/56) patients of NDVH developed pyrexia in our study, although higher rates of morbidity have been reported in studies from Lahore (20%) and Karachi (9.61%).^{17,18} This difference probably was due to appropriate prophylactic use of antibiotics before the start of operation in all cases. Postoperative vault haematoma increases postoperative febrile morbidity due to infective pathology. But there was no vault haematoma, only vaginal cuff cellulites was in 1.78% (1/56) cases. Probably it was the result from appropriate technique of vault closure, closure with intermittent sutures prevent vault haematoma. While closing the vault by continuous locking suture increases the chances, vault granuloma is more common with catgut suture. Vicryl is good for preventing granuloma.¹⁹ In our study the risk of serious peri-operative and postoperative complications are low. So, larger and more robust studies are therefore, even required to consider the best outcome of the patients such as quality of life, sexual function, pelvic pain and vaginal prolapse.

Conclusion

It can be concluded that nondescent vaginal hysterectomy has many advantages which include shorter hospital stay and faster convalescence. It

is also less invasive than laparoscopic hysterectomy. As day by day the previous contraindications to vaginal hysterectomy are getting out, so every gynecologist should be familiar with doing benign non descent vaginal hysterectomy.

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