

Original Research Article

STUDY OF PATIENT PROFILE, RISKS, BENEFITS AND OUTCOME IN PATIENTS UNDERGOING NONDESCENT VAGINAL HYSTERECTOMY

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ABSTRACT

Background: Objectives: Nondecant vaginal hysterectomy with prophylactic antibiotics should be strongly considered for those women of all age groups for whom either surgical approach is clinically appropriate. Objectives of the present study were: To study Non-Descent Vaginal Hysterectomy in terms of pre and post-operative period. To study intra-operative Blood loss, duration of procedure and intraoperative complications and to study post-operative pain and complications.

Materials and Methods: This was a retrospective observational study comprising 50 cases of patients coming to Gynecology OPD in tertiary care center, Gujarat and is going for Nondecant vaginal hysterectomy. Patient admitted for various indications for Nondecant vaginal hysterectomy were asked about detailed history, chief complain, past history, family and personal history, last menstruation period, past menstrual history, etc. Time taken during surgery, intra operative complications like blood loss, bowel or bladder injury, etc. was noted. Patient was monitored in post-operative period for post operative pain, bleeding, urine output, febrile episodes, need for blood transfusion etc.

Results: 76% patients had Nondecant vaginal hysterectomy due to abnormal uterine bleeding. Most of the patients was in the age group of 41 to 50 years of age. In present study, 27(54%) patients had uterine size <8 weeks, 15 (30%) patients had 8-10 weeks size uterus and rest 8 (16%) patients had uterine size <12 weeks and >10 weeks. In 26(52%) patient entire uterus was removed, 17(34%) patients had bisection of uterus, 5(10%) patients had morcellation and 2(4%) had myomectomy for removal of uterus. In present study, 1(2%) patient had bladder injury whereas 49 (98%) patients hadn't had any intra operative complications.

Conclusion: Vaginal hysterectomy is the approach of choice whenever feasible. Evidence demonstrates that it is associated with better outcomes when compared with other approaches of hysterectomy.

Key Words: Post-Operative Pain, Prophylactic Antibiotics, Nondecant vaginal Hysterectomy, Uterus.

INTRODUCTION

Hysterectomy is a commonly performed major gynaecological surgery. Nowadays a spectrum of approaches is available for performing hysterectomy. The traditional laparoscopic and abdominal hysterectomies represent the least and most invasive techniques, respectively, whereas the

vaginal procedures remain in the middle of the spectrum. Abdominal hysterectomy is undoubtedly the most popular with a 70:30 ratio for abdominal versus vaginal route.^[1,2] Most of surgeons still use the abdominal approach as the operation of choice, particularly when dealing with pelvic pathology or carrying out oophorectomy. Thought of the vaginal

route and laparoscopic route is emerging now with advancing time and technology.^[1,2]

Mostly a route is decided on surgeon's choice or because it has become a routine procedure in that particular institution. Despite the proven advantages of Non-descent vaginal hysterectomy, abdominal route is still preferred due to lack of experience and practice for vaginal hysterectomy. The convenience and direct visualization offered by an abdominal incision also has led to the preponderance of abdominal hysterectomy over other types of hysterectomy. In modern medical standards, arbitrary approach is not justifiable as there are significant differences in the medical and economic outcome of abdominal, laparoscopic and vaginal hysterectomy. With the emergence of better surgical skills and learning techniques most of the surgeons are now switching over to vaginal hysterectomy from abdominal one.^[3-5]

The common belief that bigger, bulky uterus, endometriosis, Pelvic inflammatory disease, previous surgeries and narrow vagina make vaginal hysterectomy difficult to be performed, but they are not considered to be contra-indications for non-descent vaginal hysterectomy and can be successfully attempted in all these conditions. However, proper selection of patients is a critical factor in determining the success of vaginal procedures. It has been asserted by many studies that a scar less surgery in the form of non-descent vaginal hysterectomy should be preferred by all surgeons as the primary route for benign cases because in non-descent vaginal hysterectomy peritoneum is opened only to a minimal extent, thus making it almost an extra peritoneal surgery with minimal bowel handling and least possibility of post-operative paralytic ileum as compared to Abdominal hysterectomy.^[6,7]

The morbidity associated with abdominal incision like infections, dehiscence, evisceration, hernia and discomfort of a scar is also avoided. Decreased post-operative morbidity and early recovery in case of non-descent vaginal hysterectomy is due to quick return of bowel functions, early ambulation, reduced requirement of medication and intravenous fluids.^[8] Hence, it is better tolerated by elderly patients, obese and those with associated medical disorders.

The Institute for Health and Clinical Excellence guidelines, RCOG 2011, UK, states that only real indication necessitating total abdominal hysterectomy is for a uterine size greater than 18 weeks.^[9] CREST study conducted by CDC advocates that women who underwent vaginal hysterectomy experienced significantly fewer complications than women who had undergone abdominal hysterectomy with less febrile morbidity, bleeding requiring transfusion, hospitalisation and convalescence than abdominal hysterectomy.^[9]

Vaginal hysterectomy with prophylactic antibiotics should be strongly considered for those women of reproductive age for whom either surgical approach is clinically appropriate. For the relative

contraindications to vaginal hysterectomy such as restricted mobility, large size of the uterus, concurrent procedures, nulliparity and previous surgeries, the application of scoring system developed by Aloknanda et al.^[5] can help in deciding the feasibility of non-descent vaginal hysterectomy. An analysis for cost between abdominal, laparoscopic assisted vaginal hysterectomy and vaginal hysterectomy by Ransom,^[6] revealed that vaginal hysterectomy was significantly more cost effective.

Objectives of the present study were:

- To study Non-Descent Vaginal Hysterectomy in terms of pre and post-operative period.
- To study intra-operative Blood loss, duration of procedure and intraoperative complications.
- To study post-operative pain and complications.

MATERIALS AND METHODS

This was a retrospective observational study comprising 50 cases of patients coming to Gynecology OPD in tertiary care hospital, Gujarat and is going for non-descent vaginal hysterectomy. This retrospective observational study was conducted over a period of 2 years.

Patients were categorized according to Inclusion and Exclusion criteria and selected patients underwent non-descent vaginal hysterectomy. Different parameters of comparison are compiled in the form of charts and tables and were compared with other studies.

Inclusion Criteria

- Uterine size \leq 12 weeks
- Adenomyosis
- Fibroid $<$ 12 weeks size
- Abnormal uterine bleeding
- Pelvic inflammatory disease
- Postmenopausal Bleeding
- Endometrial Hyperplasia

Exclusion Criteria

- Uterine size $>$ 12 weeks
- Prolapsed Uterus of any degree without traction
- Adnexal mass
- Malignancy of genital tract
- Restricted Mobility

Patient admitted for various indications for non-descent vaginal hysterectomy were asked about detailed history, chief complaint, past history, family and personal history, last menstruation period, past menstrual history, etc. Each patient irrespective of her last menstruation period or past menstrual history was subjected to urine pregnancy test. A careful general and systemic examination was carried out in all patients. Detailed gynec examination including Per abdominal, per speculum and per vaginum examination was done. All patients were subjected to PAP smear to rule out malignancy.

Following investigations were done

- CBC with blood indices with peripheral smear
- Renal function test
- Liver function test PT, INR
- Blood group and cross matching, S.HIV
- S.HbsAg, Urine Routine microbiology
- Ultrasonography of abdomen and pelvis

Pre-anaesthetic and medical fitness were done as preoperative workup. Informed and written consent explaining about procedure, potential risks of surgery, post-operative complications etc was taken from relatives and patient. Nill by mouth from midnight before surgery and bowel preparation with enema in morning was done. Preoperative antibiotic dose just before the surgery was given to each and every patient.

Time taken during surgery, intra operative complications like blood loss, bowel or bladder

injury, etc was noted. Patient was monitored in post-operative period was post operative pain, bleeding, urine output, febrile episodes, need for blood transfusion etc. Each patient was discharged after passage of urine and stool.

Statistical Analysis

The recorded data was compiled and entered in a spreadsheet computer program (Microsoft Excel 2019) and then exported to data editor page of SPSS version 19 (SPSS Inc., Chicago, Illinois, USA). Quantitative variables were described as means and standard deviations or median and interquartile range based on their distribution. Qualitative variables were presented as count and percentages. For all tests, confidence level and level of significance were set at 95% and 5% respectively.

RESULTS AND DISCUSSION

Table 1: Indication of Nondecant vaginal hysterectomy

Indication	Present Study		Tejal Patel et al ¹⁰ 2018		S.Shanti et al ¹¹ 2017	
	No of Patients	Percentage	No of Patients	Percentage	No of Patients	Percentage
AUB	38	76	42	84	9	36
Adenomyosis	7	14	2	4	10	40
Fibroid	2	4	1	2	1	4
Chronic pelvic pain	1	2	0	0	2	8
Endometrial hyperplasia	1	2	2	4	1	4
Pelvic inflammatory disease	1	2	3	12	2	8
Total	50	100	50	100	25	100

38 (76%) patients had nondecant vaginal hysterectomy due to abnormal uterine bleeding, 7 (14%) due to adenomyosis, 2(4%) due to fibroid, and 1 (2%) due to chronic pelvic pain, endometrial hyperplasia and pelvic inflammatory disease each in the present study group. Where as in Tejal Patel

study,^[10] most of the patient had AUB in majority (84%) of nondecant vaginal hysterectomy cases and in S.Shanti study,^[11] majority of patients had AUB (36%) and Adenomyosis (40%) as indication of Nondecant vaginal hysterectomy .

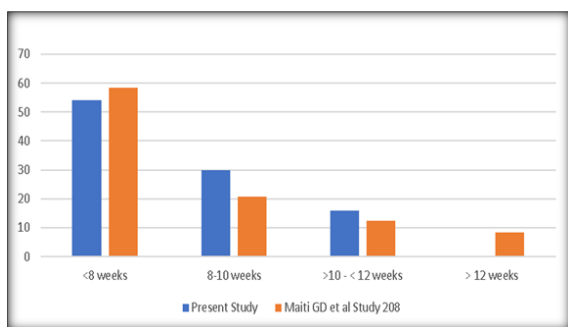
Table 2: Distribution according to age

Age	Present Study		Tejal Patel et al ¹⁰ Study 2018		S. Shanthi et al ¹¹ Study 2017	
	No of patients	Percentage	No of patients	Percentage	No of patients	Percentage
<=40	13	26	17	34	1	4
41 - 50	32	64	30	60	23	92
51 - 60	4	8	3	6	1	4
> 60	1	2	0	0	0	0
Total	50	100	50	100	25	100

Most of the patients was in the age group of 41 to 50 years of age in present study (64%) as well as in Tejal Patel study,^[10] (60%), and in S.Shanthi study,^[11] (92%) as well. In present study, most of the patients 32 (64%) were in the age group of 41 to 50, 13 (26%) patients were below the age of 40, 4 (8%) patients were between 51 to 60 years and 1 patient were above 60 years of age.

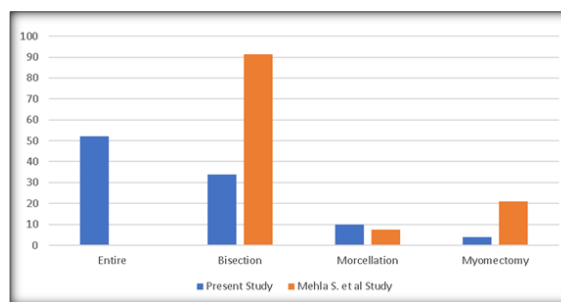
38 (78%) patients out of 50 was multipara, 8 (16%) patients were primi and 3 (6%) were nullipara in

present study. Majority of the patients in Tejal Patel study,^[10] were Multipara (92%).



Graph 1: Distribution according to size of uterus

In present study, 27(54%) patients had uterine size <8 weeks, 15 (30%) patients had 8-10 weeks size uterus and rest 8 (16%) patients had uterine size <12 weeks and >10 weeks. In Maiti GD et al Study, 42 (58.3%) patients had uterine size <8 weeks, 15 (20.8%) patients had uterine size > 8 weeks, 9(12.5%) patients had uterus >10 weeks and < 12 weeks whereas 6(8.3%) patients had uterine size of >12 weeks



Graph 2: Types of debulking technique used

In 26(52%) patient entire uterus was removed, 17(34%) patients had bisection of uterus, 5(10%) patients had morcellation and 2(4%) had myomectomy for removal of uterus. In Mehla S. Study,^[13] 91.4% patients had bisection 7.6% had morcellation and 20.9% had myomectomy.

In present study, duration of study was < 1 hour in 34(68%) patients and > 1 hour in 16(32%) patients. In Tejal Patel,^[10] study 44(88%) patients had surgery for < 1 hour and 6(12%) patients had > 1 hour of surgery. Majority of patients 47 (94%) was discharged from hospital within 5 days, 2 (4%) had stay of 6 to 10 days and 1 (2%) had > 10 days of hospital stay in present study.

Table 3: History of past abdominal surgery

Surgery	Present Study		Tejal Patel et al ¹⁰ Study 2018	
	No of patients	Percentage	No of patients	Percentage
Previous cesarean section	7	14	3	6
Abdominal tubal ligation	10	20	13	26
Laparoscopic tubal ligation	15	30	11	22
Others	0	0	1	2
Total	32	64	27	54

In present study, 7 (14%) patients had history of previous Cesarean section , 10(20%) patients had history of abdominal tubal ligation , 15(30%) patients had history of Laparoscopic tubal ligation. 3 (6%) patients had history of previous Cesarean section , 13 (26%) patients had history of abdominal tubal ligation , 11 (22%) patients had history of Laparoscopic tubal ligation in Tejal patel study.^[10] In present study 15 (30%) patients had hypertension as comorbid condition, 9 (18%) patients had type 2 Diabetes mellitus, 8 (16%) had both hypertension

and diabetes mellitus, 2 (4%) patients were known case of ischemic heart diseases, 8 (16%) had hypothyroidism and 10 (20%) patients had anemia. Where is S. Shanthi study³⁵ 2 (8%) patients had history of hypertension, 3 (12%) had type 2 Diabetes mellitus , 6 (24%) patients had both diabetes mellitus and hypertension, 2 (8%) had hypothyroidism and 3 (12%) patients had anemia. In present study, there was blood loss of <100 ml in 12 (24%) patients, between 100-200 ml in 31 (62%) patients and >200 ml blood loss in 7 (14%) patients.

Table 4.1: Complications – Intra-operative

Complications	Present Study		S.Shinde Study 2015	
	No of patients	Percentage	No of patients	Percentage
None	49	98	0	0
Bowel injury	0	0	0	0
Bladder injury	1	2	0	0
Ureteric injury	0	0	0	0
Total	50	100	0	0

In present study, 1(2%) patient had bladder injury whereas 49 (98%) patients hadn't had any intra

operative complications. In S. Shinde study,^[38] there were no intra-operative complications.

Table 4.2: Complication – post-operative

Complication	Present Study		S. Shinde Study11 2015	
	No of patients	Percentage	No of patients	Percentage
Need for Blood transfusion	1	2	0	0
Febrile illness	2	4	1	2
secondary Hemorrhage	0	0	0	0
Total	3	6	1	2

In present study, only 1 patient required post of blood transfusion and 2 patients had febrile illness whereas rest patient hadn't had any postoperative complications. In S. Shinde,^[14] study, only 1 (2%) patient had febrile illness.

CONCLUSION

Vaginal hysterectomy is associated with better outcomes when compared with other approaches to hysterectomy. Even in large uterus, vaginal hysterectomy with debulking procedures is safe and feasible with less postoperative hospital stay and short bladder catheter retention time (48 hours). Bipolar vessel sealing system is now widely used in many surgical procedures and its application in gynaecology is gaining encouraging results both in laparoscopic and vaginal surgery. Vaginal hysterectomy is gaining popularity as it is a scarless surgery and there is less postoperative pain, less duration of hospital stay, less blood loss.

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