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Obs and Gynae

NDVH or TAH- Choosing Wisely and Making Safely

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Abstract **Original Research Article**

Objective: In this study our main goal is to evaluate the efficiency and safety between Non-Descent Vaginal Hysterectomy (NDVH) and Total Abdominal Hysterectomy (TAH). ***Method:*** This randomized prospective comparative study was carried out Kumudini Women's Medical College from Jan2019 to Jan 2020. A total of 100 patients requiring hysterectomy were selected from the Outpatient Department and detailed history elicited and general and systemic examinations performed and confounding variables strictly controlled by following inclusion and exclusion criteria were enrolled for this study. Where in group A (n = 50) underwent vaginal hysterectomy (non-descent vaginal hysterectomy, NDVH) which was compared with group B (n = 50) who had abdominal hysterectomy. ***Results:*** During the study, in both group most of them were multiparas, followed by in NDVH group 8% had previous pelvic surgeries and 42% had medical illness where as in TAH group, 4% had previous pelvic surgeries and 40.5% had medical illness. In the vaginal group, 25% had undergone concurrent salpingo-ophorectomy whereas 30% in the abdominal group. The mean duration of surgery was 37.05 minutes in the vaginal group, whereas, it was 56.1 minutes in the abdominal group, implying a significant difference ($p< 0.05$). Similarly, a significantly higher blood loss (248 ml) was noted in the abdominal hysterectomy group, compared to 101.5 ml in the vaginal group ($p< 0.05$). ***Conclusion:*** From our study we can conclude that, patients requiring hysterectomy for benign non prolapse cases may be offered the option of vaginal hysterectomy which has quicker recovery, shorter hospitalization, lesser operative and postoperative morbidity compared to abdominal route.

Keywords: Non-Descent Vaginal Hysterectomy (NDVH), Total Abdominal Hysterectomy (TAH) , benign non prolapse.

INTRODUCTION

Hysterectomy is the second most common operation performed by the Gynaecologists [1, 2], next only to Caesarean Section and can be done through abdominal, vaginal and laparoscopic routes [3]. Despite multiple studies stating that vaginal route is preferred to abdominal route in mobile uteri of 12 weeks or lesser, ACOG committee opinion is the only formal guideline establishing the fact [4, 5]. Traditional abdominal and vaginal hysterectomies represent the most and least invasive techniques respectively. The ease and convenience offered by a large abdominal incision have led to the preponderance of abdominal hysterectomy over the vaginal route. Laparoscopic route is associated with increased operating times and rise in the rate of intraoperative injuries [6]. The common belief that bigger, bulky uteri, endometriosis, Pelvic inflammatory disease, previous surgeries[7], and narrow vagina make vaginal hysterectomy difficult to be performed are not considered to be contra-indications for non-descent vaginal hysterectomy and can be successfully attempted in all these conditions. It has a clear advantage over the abdominal route in obese women [8]. However, proper selection of patients is a critical factor in determining the success of vaginal procedures. In this study our main goal is to evaluate the efficiency and safety between Non-Descent Vaginal Hysterectomy (NDVH) and Total Abdominal Hysterectomy (TAH).

OBJECTIVE

To evaluate the efficiency and safety between Non-Descent Vaginal Hysterectomy (NDVH) and Total Abdominal Hysterectomy (TAH)

METHODOLOGY

Type of study	**randomized prospective comparative study**
Place of study	Kumudini Women's Medical College
Study period	Jan 2019 to Jan 2020
Study population	A total of 100 patients requiring hysterectomy were selected from the Outpatient Department and detailed history elicited and general and systemic examinations performed and confounding variables strictly controlled by following inclusion and exclusion criteria were enrolled for this study. Where in group A (n = 50) underwent vaginal hysterectomy (non-descent vaginal hysterectomy, NDVH) which was compared with group B (n = 50) who had abdominal hysterectomy.
Sampling technique	Purposive

METHOD

During the study, Women were included in the study only if the uterine size was 12 weeks or lesser, uterus was mobile and if the operation was being performed for a benign uterine condition. Women were excluded if their uterus was more than 12 weeks size, restricted mobility, uterovaginal prolapse, complex adnexal mass, previous 2 or more LSCS. Women who had ophorectomy concurrently with hysterectomies were included. Informed, written consent was taken from all the patients after explaining the risks and benefits associated with the procedure. Approval of ethical committee was also taken.

DATA ANALYSIS

Statistical analysis was performed using the Statistical package for social science SPSS version 15.0. A descriptive analysis was performed for clinical features and results were presented as mean ± standard deviation for quantitative variables and numbers (percentages) for qualitative variables.

In table-1 shows age distribution of the patients where in both group most of the patients belong to 21-30 years age group, 82% and 80%. The following table is given below in detail:

Table-1: Age distribution of the patients

Age group	**NDVH, Percent**	**TAH, percent**
<32 years	8%	5%
32- 40 years	82%	80%
>30 years	10%	15%

In table-2 shows residential area of the patients where 40% belong to rural area, where as 60% belongs to urban area. The following table is given below in detail:

Table-2: Residential area of the patients

Residential area	**%**
Rural	60%
Urban	40%

In table-3 shows base line characteristics of the patients where in both group most of them were multiparas, followed by in NDVH group 8% had previous pelvic surgeries and 42% had medical illness where as in TAH group, 4% had previous pelvic surgeries and 40.5% had medical illness. The following table is given below in detail:

Table-3: Base line characteristics of the patients

Parity	**NDVH, Percent**	**TAH, percent**
Nullipara	30%	40%
Multiparas	70%	60%
Patients with previous pelvic surgeries	8%	4%
Medical illness	42%	40.5%

In table-4 shows Gynaecological disease of the patients where the Gynaecological diseases were diagnosed by pathological examination. The diseases in each group were comparable. The following table is given below in detail:

Table-4: Gynaecological disease of the patients

DIAGNOSIS	**NDVH, Percent**	**TAH, percent**
Fibroid	56%	44%
Endometrial hyperplasia/polyp	21%	23%
Chronic cervicitis	7%	5%
Adenomyosis	8%	9.5%
Dysfunctional Uterine Bleeding	6.1%	4.9%
Cervical Intraepithelial Neoplasia	3%	2%

In figure-1 shows distribution of the patients according to Salphingo-oophorectomy. In the vaginal group, 25% had undergone concurrent salpingo-ophorectomy whereas 30% in the abdominal group. The following figure is given below in detail:

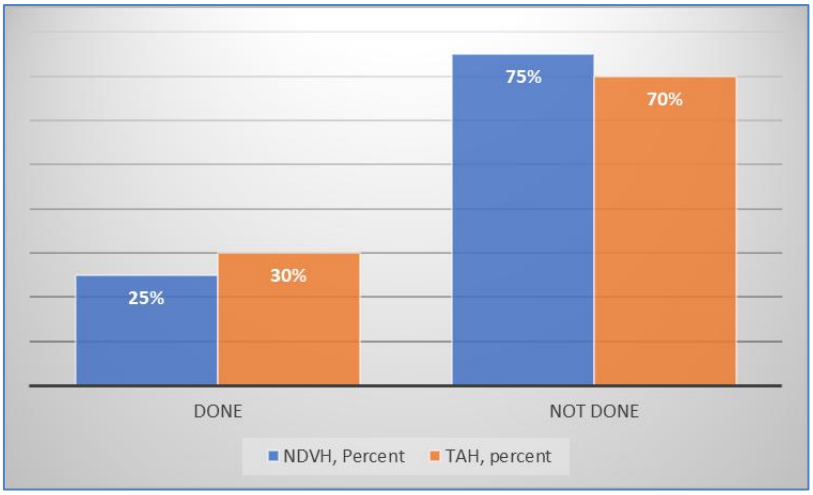

Fig-1: Distribution of the patients according to Salphingo-oophorectomy

In table-5 shows intraoperative and postoperative outcomes where the mean duration of surgery was 37.05 minutes in the vaginal group, whereas, it was 56.1 minutes in the abdominal group, implying a significant difference (p< 0.05). Similarly, a significantly higher blood loss (248 ml) was noted in the abdominal hysterectomy group, compared to 101.5 ml in the vaginal group (p< 0.05). The following table is given below in detail:

Table-5: Intraoperative and postoperative outcomes

DIAGNOSIS	NDVH	TAH	Test of significance	p-value	Statistical significance
Operation duration (mins)	37.05	56.1	t' test	<0.00001	Significant
Blood loss (ml)	101.5	248		<0.00001	Significant
Postoperative pain (days of analgesic requirement)	1.60	3.70		<0.00001	Significant
Hospital stay (days)	5	11		<0.00001	Significant
Postoperative mobility (days)	3	5		<0.00001	Significant
Postoperative blood transfusion (no. of units)	10%	37%	χ^2 (chi-square test)	<0.00001	Significant
Postoperative wound infection	1%	30%		<0.00001	Significant
Febrile morbidity	3%	21%		<0.00001	Significant
Postoperative systemic infections	6%	7%		1	Non-Significant

DISCUSSION

One study conducted on 80 women planned for NDVH had a success rate of 95% [8]. These patients were treated by vaginal hysterectomy and the operating time; laparotomy conversion rate and intraoperative blood loss was directly proportional to the size of the uterus and concluded that vaginal hysterectomy is a safe and effective procedure in uteri of less than 12 weeks size. Where as in our study, mean duration of surgery was 37.05 minutes in the vaginal group, whereas, it was 56.1 minutes in the abdominal group, implying a significant difference (p< 0.05). Similarly, a significantly higher blood loss (248 ml) was noted in the abdominal hysterectomy group, compared to 101.5 ml in the vaginal group (p< 0.05).

Another study comparing vaginal hysterectomy with abdominal hysterectomy with 23 patients in each group and found a reduced operating time, lesser intraoperative blood loss, reduced postoperative morbidity and shorter hospital stay in the vaginal hysterectomy group [9]. Other article concluded experiment that intraoperative and postoperative morbidity were lesser in vaginal hysterectomy compared to abdominal hysterectomy and that vaginal hysterectomy should be the procedure of choice wherever possible[10]. Another study on 250 patients challenged the common contra-indications to vaginal hysterectomy including large uteri, nulliparas, previous CS or laparotomies and concluded that the above-mentioned factors are rarely contra-indications [11]. Where as in our studyin both group most of them were multiparas, followed by in NDVH group 8% had previous pelvic surgeries and 42% had medical illness where as in TAH group, 4% had previous pelvic surgeries and 40.5% had medical illness.

CONCLUSION

From our study we can conclude that, patients requiring hysterectomy for benign non prolapse cases

may be offered the option of vaginal hysterectomy which has quicker recovery, shorter hospitalization, lesser operative and postoperative morbidity compared to abdominal route.

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