ORIGINAL RESEARCH PAPER

Gynaecology

A COMPARATIVE STUDY OF ABDOMINAL ROUTE VS NONDESCENT VAGINAL (NDVH) ROUTE FOR HYSTERECTOMY OF FIBROID UTERUS IN A RURAL HOSPITAL IN MAHARASHTRA.

KEY WORDS: Hysterectomy, Fibroid uterus

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ABSTRACT

Hysterectomy is one of the most common surgical procedure performed. The presence of uterine fibroid tumour is a common finding in women of fertile age. Hysterectomy remains the treatment of choice for symptomatic patients & can be performed abdominally or vaginally or LAVH.

Objective-: The present study was undertaken with a view to compare the technical difficulties, complications and morbidity associated with vaginal and abdominal hysterectomy for enlarged fibroid uterus.

Material and methods-: This prospective study was undertaken on 100 patients with 6-14 wks fibroid uterus admitted in gyn ward for hysterectomy ,divided equally in two groups of 50 each undergoing abdominal hysterectomy and NDVH respectively.Observations were noted and statistical tests applied.

Conclusion-: Vaginal Hysterectomy is a better alternative to abdominal hysterectomy, for patients with moderately enlarged, mobile uterus. It has fewer intraoperative and postoperative complications.

Hysterectomy is one of the most common surgical procedure performed.[1] About 75% of the hysterectomies are done by the abdominal route1, despite its association with higher incidence of complications, longer hospital stay and greater hospital charges than Vaginal Hysterectomy. Uterine Leiomyoma are the most common pelvic tumours[2] in women; this condition is responsible for a large number of hysterectomies. Uterine fibroid tumour is a common finding in women of fertile age, with an incidence of approximately 20% to 25%[3]. Hysterectomy remains the treatment of choice in our setup for symptomatic patients which can be performed abdominally or vaginally or LAVH. An enlarged uterus is not a contraindication for Vaginal Hysterectomy[4], provided the cases are chosen properly.

OBJECTIVES:

1. To study merits and demerits of abdominal and Vaginal Hysterectomy for fibroid uterus.
2. To assess which route will be better for a particular size of fibroid uterus with respect to -:

Duration of Surgery, Amount of Blood Loss, Operative Complication, Hospital Stay & Blood Transfusion

SITE OF STUDY- Department of OBGY , S.M.B.T IMS & RC, Dhamangaon, Nashik

TYPE OF STUDY - Prospective study

DURATION OF STUDY- 1st January 2017 to 30th November 2017.

INCLUSION CRITERIA-One hundred Patients with enlarged, mobile, uterus of 6-14 weeks size which necessitates hysterectomy for fibroid.

EXCLUSION CRITERIA-Prolapse, malignancy , PID, Endometriosis, Previous major pelvic procedures.

MATERIAL AND METHODS

Detailed Clinical evaluation of the enrolled patients was performed. Abdominal examination , P/S & P/V was done to determine the size of the uterus, mobility, presence of adnexal mass, discharge, prolapse, & PID.

Routine investigations, pre-op USG, PAP smear was done and Patients allotted to group A or B using random table.

Group A patients underwent Non descent Vaginal Hysterectomy(NDVH). Group B patients underwent Abdominal Hysterectomy(AH). All NDVH & AH were performed without laparoscopic assistance by gynaecologists under spinal anaesthesia (Assistant professor and above). Consent was taken from patients with the provision that it may be necessary to convert VH to abdominal surgery, if necessary. Patients received prophylactic antibiotics consisting of inj. cefotaxime 1 gm and inj.Metronidazole 500mg IV 30mins preoperatively and postoperatively 2 & 3 doses daily respectively for next 2 days.

The following parameters were studied

Operative time (minutes)was calculated from incision to closure. Blood loss was estimated from the soakage of the mop and pads ,suction bottle collection & 50ml blood loss was estimated as lost in drapes and gloves Use of uterine volume reduction were carried out as needed.Operative complications,injuries,technical difficulties encountered, additional procedures performed, Weight of the hysterectomy specimen before formalin fixation were noted.

Postoperatively, patients were given parenteral fluids until bowel sounds appeared. Then they were started on oral fluids. Indwelling catheter was kept usually for 24 hours. Analgesics were given on the day of the surgery and the first postoperative day based on the patient's request for pain relief. The need for analgesics was recorded.The preoperative Hb concentration was compared with that obtained after 48 hrs , to calculate the operative Hb concentration change.

Course of the immediate postoperative period of all patients was recorded.Occurrence of any complications were noted and the remedial measures taken.

METHOD OF STATISTICAL ANALYSIS

Student t- test & Chi square test. 5% & 1 % level of significance respectively.

OBSERVATIONS:PATIENT CHARACTERISTICS

1) **Age-:** Maximum of 72% patients were in the age group of 40-

49. Age parameter was equally distributed on both sides ,there is no significant difference between the mean age of Vaginal & Abdominal Patients.(t=0.5162 with p value =0.6068 >0.05.)

2) Weight- There is no significant difference between the mean weight of Vaginal & Abdominal patients ,both groups are distributed equally in the weight groups in the ratio 1:5:5:1 at weight <50, 50—59, 60—69, >=70 .Using Chi Square test this is verified. (t=0.5959 with p value =0.5319 >0.05.) At 1% of level of significance both groups are identical.

3) Parity- It is found that the patients in both groups are distributed equally in the ratio 1:5:5:1 at Parity ≤1, 2, 3, ≥4 .Using Chi Square test this is verified. Average Parity is 2.74 in Vaginal & 2.28 in Abdominal group

4) Past Surgical & Medical Problems- 42% each had no past operations and 44% & 14% each had only Tubectomy/ MTP done.

5) Uterine Size (Weeks)- The mean uterine size for NDVH was 11.84wk and for AH-12.52wk.There is no significant difference between the mean Uterine Size of Vaginal & Abdominal Patients. (t=1.8011 with p value =0.0745 >0.05)

A) INTRAOPERATIVE FINDINGS

1) Uterine Weight- Mean uterine weight for NDVH=224.80gm , AH=255.80gm.There is significant difference between the mean Uterine Weight of Vaginal & Abdominal Patients t =2.1224 with p value = 0.0363 (p<0.05). Abdominal had an additional Uterine Weight of 25 gm comparing vaginal patients. Using Student's t test it is verified as t=0.4109 with p value =0.6820 >0.05

Volume Reduction Procedure- This procedure is adopted only in vaginal patients(68%).

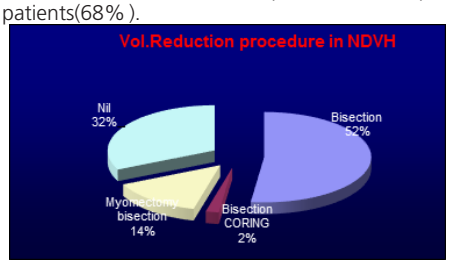

Fig:1 Volume Reduction Procedure in NDVH

3) Operating Time – Mean operating time for NDVH=45.9min & AH=60.06min,There is significant difference between the mean Operating Time of Vaginal & Abdominal Patients. Abdominal route requires an additional Operation Time of 25 minutes. (Verified with Student's t test t=0.6160 with p value =0.5392 >0.05).

4) Blood Loss- Mean blood loss for NDVH was 126.70ml , AH was 264.4ml There is significant difference between the mean Blood Loss of Vaginal & Abdominal Patients t =7.5351 with p value=2.455 E-11(<0.05).AH group had an additional Blood Loss of 135 ml compared to vaginal patients. (Verified with Student's t test t=0.5462 with p value =0.5861 >0.05).

5) Technical Difficulties- Upper pedical ligation was difficulty encountered in 1 patient of NDVH while 2 patients of AH had adhesions.

B) POST OPERATIVE EVENTS

1) Post Op Hb Change - There is significant difference between the mean Post Op Hb Change of Vaginal (1.15gm %) & Abdominal (2.30gm %) patients (t 9.8166 with p value = 3.0262 E -16 (<0.05)). Abdominal had an additional change of 1g/dl Hb comparing vaginal patients. (Verified with Student's t test t=1.4588 with p value =0.1477 >0.05).

2) Complications : Complications in VH are comparatively less to AH in all the factors .

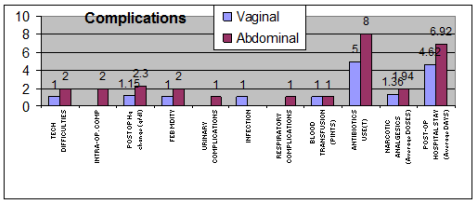

Fig : 2 Complications

3: Analgesic requirement

TABLE:1 Mean & Standard Deviation of Dose of. Analgesic

Analgesic (Tramadol)	Vaginal	Abdominal
Mean	1.36	1.94
Standard Deviation	0.53	0.24

There is significant difference between the average doses of Analgesic of Vaginal & Abdominal Patients t =6.7841 with p value = 8.9269(<0.05). Abdominal had an additional number of doses of 0.5 required comparing vaginal patients. (Verified with Student's t test t=0.9775with p value =0.3307 >0.05).

4: Post Op Hospital Stay

There is significant difference between the average days of Post Op Hospital Stay of Vaginal (4.62days) & Abdominal Patients(6.92days) t=19.6009 with p value = 1.11 E – 35(<0.05). Abdominal had an additional 2 days hospital stay compared to vaginal patients. (Verified with Student's t tets t=0.5334 with p value =0.5949 >0.05).

DISCUSSION-:

82% Hysterectomies were carried out in the age group of 41 – 49 yrs. The mean age in our study was 44.62 ± 4.36 years for NDVH and 44.14 4.9 years in AH. There was no significant difference with regard to age.Mishra and Roy Choudhari[5] quoted incidence of 45% for AH in the age of 31 -40 yrs .Quinlan D[6] in his study reported the mean age of the 85 women undergoing NDVH for fibroid was 39 years (range 33 to 72 years) and mean parity was 2. The study shows that maximum number of cases i.e. 44% were having 2 children followed by 32% of patient having 3 children which was comparable to Quinlan D[6] in his study. The mean parity in vaginal group was 2.74 and that in abdominal group was 2.84. In our study, the mean uterine size was 11.84 ± 1.89 weeks for NDVH and 12.52 ± 1.89 weeks for the AH. It was not statistically significant. There was a significant decrease in blood loss, operative time, analgesic use and hospital stay in NDVH patients. The main key in successful NDVH is volume reduction techniques. In the present study, volume reduction procedures were performed in 68% cases, without any complications. Bisection was employed in 54% cases and bisection with myomectomy in 14% cases. Unger (1999) et al used morcellation in 80% cases.[7] The average amount of blood loss encountered with AH was 261.4 ±77.72ml and for NDVH was 126.4 ±98.58. Abdominal had an additional Blood Loss of 135 ml compared to vaginal patients.The minimal/maximum blood loss in NDVH was 35ml/400ml whereas that in AH was 100ml/450ml depending upon the size of the uterus. Kumar Sushil reported a blood loss of 150- 480 in his study which is comparable to our study[8].The mean perioperative haemoglobin change was 1.15 ± 0.57g/dl in the vaginal group versus 2.30 ± 0.59g/dl in the abdominal group. Switala et al (1998) reports, the haemoglobin change observed was 1.82g/dl in the vaginal and 2.49 g/dl in the abdominal group(p=0.02).[9] In our study, NDVH was successfully completed in 98% of cases. This rate is similar to 95% success rate in Kumar Sushil's study[8].Adnexectomies were performed in 6% cases of NDVH and 48% cases of AH. Dorsey[10] et al (1995) performed adnexectomy in 18.3% of NDVH cases and 87.3% of AH. Operative time was significantly less for NDVH than for AH (45.90 vs. 69.06 minutes). Whenever adhesions were encountered there was significantly increased operative time. Unlike this, in Harmanli et al (2004) study, the difference in operative time between the vaginal and abdominal procedures (114 vs 137 mins) was not significant.[4] In

the present study, the rate of postoperative complications was 4% in the vaginal group and 6% in the abdominal group. The difference was not statistically significant (p=0.504).In our study, fever was reported in 2% of NDVH and 4% of AH patients comparable to the study by Kovac (2000)[11]. In the vaginal group, 66% of patients demanded only one Analgesic dose (100 mg tramadol) whereas in the abdominal group, 92% of patients demanded 2 doses(200mg Tramadol). Postoperative pain, postoperative hospital stay was significantly less & Postoperative comfort significantly better for NDVH group in the present study.

CONCLUSION

Non Descent Vaginal Hysterectomy (NDVH) is a better alternative to abdominal hysterectomy, for patients with moderately enlarged, mobile uterus. It reduces hospital stay, allows early recovery and eliminates abdominal wound complications. A proper selection of cases, patient counselling, surgeon's preference and skill are required, to perform NDVH for enlarged uteri.

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