**ORIGINAL RESEARCH**

# Comparison of intra operative and postoperative complication in abdominal hysterectomy and non descent vaginal hysterectomy in fibroid uterus

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**ABSTRACT**

**Background:** Fibroids are muscular tumors that grow in the wall of the uterus. In this study we compared the abdominal hysterectomy and vaginal route of hysterectomy in fibroids. **Materials & Methods:** 80 cases with diagnosis of fibroid uterus requiring hyterectomy were equally divided in two groups. Group A (n = 40) includes those who underwent vaginal hysterectomy (non descent vaginal hysterectomy, NDVH) and group B (n = 40) includes those who underwent abdominal hysterectomy. Results were compared in terms of duration of surgery, complications, postoperative pain and hospital stay in both the groups. **Results:** The mean operating time for NDVH was 95 minutes and for TAH was 115.375 minutes. The difference was statistically very significant. The mean blood loss in NDVH surgery was 211.25 ml and for TAH surgery was 327.5ml. Only single case of bladder injury was there in TAH group. Incidence of blood transfusion was 10% i.e. 2.5% in NDVH group and 17.5% in TAH group. There were more intraoperative complications noted in TAH group (20%) in comparison with NDVH group (2.5%). Postoperative complications were seen more with TAH group(55%) in comparison with NDVH group(2.5%). UTI, fever and wound sepsis these all complications only were seen in TAH group. Postoperative blood transfusion incidence was 2.5% in NDVH group and 15% in TAH group. Pain score on day 3 (VAS) was between 0-3cm in 38 patients in NDVH group and was between 4-6cm in TAH group. Mean pain score was 0.9 cm in NDVH group and it was 4.08 cm in TAH group. The mean hospital stay of NDVH group was 5.18 days and for TAH group was 9.23 days. Maximum cases from NDVH group were discharged by 5th day (82.5%) and from TAH group maximum cases were discharged within 6 to 10 days (87.5%).P value of mean was statistically very significant (P value =<0.0001). **Conclusion:** Route of hysterectomy depends on choice, experience and expertization of surgeon and these things varies from individual to individual. Abdominal route was still most preferred route for hysterectomy.

**Key words:** Fibroids, Uterine leiomyoma, women



## INTRODUCTION

Fibroids are muscular tumors that grow in the wall of the uterus. Histologically this tumor was composed of smooth muscle and fibrous connective tissue so named as Uterine leiomyoma, myoma or fibromyoma.[1,2] Fibroids are almost always benign. Fibroids can grow as a single tumor, or there can be many of them in the uterus. They can be as small as an apple seed or as big as a grapefruit. In unusual cases they can become very large.[3] It was estimated that between 20 to 50 percent of women of reproductive age have fibroids, although not all are diagnosed, only about one-third of these fibroids are large enough to be detected by a health care provider during a physical examination. The prevalence was highest between 35 and 45 years.[4]

Fibroids form the most common indication for surgery in premenopausal women and they constitute a major chunk of public health cost. There are multiple studies confirming the superiority of vaginal over abdominal

route. NDVH was attempted with caution in cases with big uteri. But there are studies to refute this concept.[5] The common belief that bigger, bulky uteri, endometriosis, Pelvic inflammatory disease, previous surgeries 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.[6,7] In this study we have compared the abdominal hysterectomy and vaginal route of hysterectomy in fibroids with uterine size less than 16 weeks and analyse the result in terms of duration of surgery, complications, postoperative pain and hospital stay which route was better.

## MATERIALS & METHODS

This study was carried out at Gandhi Memorial Hospital associated with Shyam Shah Medical College, Rewa. Total 80 cases admitted in gynecology department with diagnosis of fibroid uterus requiring hyterectomy included in this study. Cases with uterine size more than 16 weeks and history of previous LSCS were excluded from the study.

The cases were equally divided in two groups. Group A (n = 40) includes those who underwent vaginal hysterectomy (non descent vaginal hysterectomy, NDVH) and group B (n = 40) includes those who underwent abdominal hysterectomy. Results were compared in terms of duration of surgery, complications, postoperative pain and hospital stay in both the groups. The data was statistically analysed using chi-square test and unpaired t test and Pvalue was determined.

## RESULTS

**Table I Sociodemographic variables**

| Sociodemographic Variables | | NDVH | TAH | TOTAL | P VALUE |
|---|---|---|---|---|---|
| Age (inyears) | 35-45 | 31(77.5%) | 36(90%) | 67(83.7%) | 0.2584 |
| | 46-55 | 8(20%) | 4(10%) | 12(15%) | |
| | >55 | 1(2.5%) | 0(0%) | 1(1.25%) | |
| Religion | Hindu | 37(92.5%) | 39(97.5%) | 76(95%) | 0.5908 |
| | Muslim | 3(7.5%) | 1(2.5%) | 4(5%) | |
| Residence | Rural | 25(62.5%) | 29(72.5%) | 54(67.5%) | 0.6339 |
| | Urban | 15(37.5%) | 11(27.5%) | 26(32.5%) | |
| Socio-economic status | UM | 2(5%) | 0(0%) | 2(2.5%) | 0.4081 |
| | LM | 16(40%) | 21(52.5%) | 37(46.25%) | |
| | UL | 22(55%) | 19(47.5%) | 41(51.25%) | |

Mean age in NDVH group is 43.025years and in TAH group is 42.57years. Most of the cases belong to 35 to 45 age group i.e. 83.75%. Most of the cases were Hindu(95%) by religion in the study. The most of the cases were from rural area(67.5%). Maximum cases belong to lower middle class(51.25%) followed by upper lower class (46.25%).

**Table II Presenting complaints**

| Complaint | NDVH (%) | TAH (%) | TOTAL (%) |
|---|---|---|---|
| Menorrhagia | 23 (57.5%) | 28(70%) | 51(63.75%) |
| Polymenorrhea | 15(37.5%) | 13(32.5%) | 28(35%) |
| Metrorrhagia | 8(20%) | 9(22.5%) | 17(21.25%) |
| Lumpabdomen | 2(5%) | 3(7.5%) | 5(6.25%) |
| Abdominalpain | 6(15%) | 6(15%) | 12(15%) |
| Others | 9(22.5%) | 6(15%) | 15(18.75%) |

Most common presenting complaint in both group was menorrhagia(63.75%), in NDVH group (57.5%), and in TAH(70%). All over mostcommon complaint was abnormal uterine bleeding includes menorrhagia, polymenorrhea and metrorrhagia.

**Table III Comparison of parameters**

| Parameters | Variables | NDVH (%) | TAH (%) | P value |
|---|---|---|---|---|
| Operative time (minutes) | 0-60 | 5(12.5%) | 0(0%) | 0.03 |
| | 61-120 | 32(80%) | 25(62.5%) | |
| | 121-180 | 3(7.5%) | 15(37.5%) | |
| Blood loss (ml) | 100-200 | 24(60%) | 2(5%) | 0.05 |
| | 200-300 | 15(37.5%) | 18(45%) | |
| | 300-400 | 1(2.5%) | 17(42.5%) | |
| | 400-500 | 0(0%) | 3(7.55%) | |
| intraoperative | Urinary bladder injury | 0 (%) | 1 (2.5%) | 0.02 |

| | | | | |
|---|---|---|---|---|
| complications | Blood transfusion | 1 (2.5%) | 7 (17.5%) | |
| | No complication | 39 (97.5%) | 32 (80%) | |
| Postoperative complications | UTI | 0 (0%) | 2 (5%) | 0.04 |
| | fever | 0 (0%) | 9 (22.5%) | |
| | Wound sepsis | 0 (0%) | 5(12.5%) | |
| | Blood trasf. | 1 (2.5%) | 6(15%) | |
| | No complication | 39(97.5%) | 18(45%) | |
| Pain score (VAS) (incm) | 0-3 | 38(95%) | 12(30%) | 0.05 |
| | 4-6 | 2(5%) | 27(67.5%) | |
| | 7-10 | 0(0%) | 1(2.5%) | |
| Hospital stay (in days) | 0-5 | 33(82.5%) | 0(0%) | 0.02 |
| | 6-10 | 7(17.5%) | 35(87.5%) | |
| | 11-15 | 0(0%) | 2(5%) | |
| | >15 | 0(0%) | 3(7.5%) | |

The mean operating time for NDVH is 95 minutes and for TAH is 115.375 minutes. The difference is statistically very significant. The mean blood loss in NDVH surgery is 211.25 ml and for TAH surgery is 327.5ml. Only single case of bladder injury was there in TAH group. Incidence of blood transfusion was 10% i.e. 2.5% in NDVH group and 17.5% in TAH group. There were more intraoperative complications noted in TAH group (20%) in comparison with NDVH group (2.5%). Postoperative complications were seen more with TAH group(55%) in comparison with NDVH group(2.5%). UTI, fever and wound sepsis these all complications only were seen in TAH group. Postoperative blood transfusion incidence is 2.5% in NDVH group and 15% in TAH group. Pain score on day 3 (VAS) was between 0-3cm in 38 patients in NDVH group and was between 4-6cm in TAH group. Mean pain score was 0.9 cm in NDVH group and it was 4.08 cm in TAH group.The mean hospital stay of NDVH group was 5.18 days and for TAH group was 9.23 days. Maximum cases from NDVH group were discharged by 5th day (82.5%) and from TAH group maximum cases were discharged within 6 to 10 days (87.5%).P value of mean is statistically very significant (P value =<0.0001).

## DISCUSSION

This study was carried out at Gandhi Memorial Hospital associated with Shyam Shah Medical College Rewa, in the department of obstetrics and Gynaecology over a period of 16 months from March 2017 to June 2018. Total 80 cases of fibroid uterus requiring hysterectomy, who fulfilled inclusion criteria were included in this study. Uterine size less than 16 weeks and history of previous section were excluded from the study. In this study we had compared the abdominal hysterectomy and vaginal route of hysterectomy in fibroid uterus and analyse the result in terms of duration of surgery, complications, postoperative pain and hospital stay which route is better.After caesarean section hysterectomy is one of the most common procedures performed by gynecologists. Hysterectomy is indicated for one of several reasons including fibroids Endrometriosis, uterine prolapse, gynecologic cancer, etc among them. Fibroids is the most common indication for surgery in premenopausal women and they constitute a major problem of public health cost.[8] There are three main methods of hysterectomy are now used—abdominal, vaginal, and laparoscopic. As we all knows that most of the cases of fibroiduterus land in abdominal hysterectomy. Vaginal hysterectomies are usually performed for prolapsed uteri. Various studies have proven the superiority of vaginal route even for enlarged uteri.[9] Techniques like bisection, morcellation, myomectomy and coring have made vaginal route feasible for fibroids.

Mean age in NDVH group is 43.025years and in TAH group is 42.57years. Most of the cases belong to 35to45 age group i.e. 83.75%. Most of were Hindu(95%) by religion in the study. The most of the cases were from rural area(67.5%). Maximum cases belong to lower middle class(51.25%) followed by upper lower class (46.25%).

We found that most common presenting complaint in both groups was menorrhagia(63.75%), in NDVH group (57.5%), and in TAH(70%). All over most common complaint was abnormal uterine bleeding includes menorrhagia, polymenorrhea and metrorrhagia. Rohidas P et al[10] study of 100 cases in which 50 patients went for NDVH and 50 were went for TAH. Patients undergoing NDVH had an average operating time of 48.68 mins whereas for those undergoing TAH was 92.52 mins.

We observed that the mean operating time for NDVH is 95 minutes and for TAH is 115.375 minutes. The mean blood loss in NDVH surgery is 211.25 ml and for TAH surgery is 327.5ml. Only single case of bladder injury was there in TAH group. Incidence of blood transfusion was 10% i.e. 2.5% in NDVH group and 17.5% in TAH group. There were more intraoperative complications noted in TAH group (20%) in comparison with NDVH group (2.5%). Postoperative complications were seen more with TAH group(55%) in comparison with NDVH group(2.5%). UTI, fever and wound sepsis these all complications only were seen in TAH group. Postoperative blood transfusion incidence is 2.5% in NDVH group and 15% in TAH group. Pain score on day 3 (VAS) was between 0-3cm in 38 patients in NDVH group and was between 4-6cm in TAH group.

Mean pain score was 0.9 cm in NDVH group and it was 4.08 cm in TAH group.In study of S Bharatnur et al[11], post-operative complications wasmore in TAHthan NDVH. Fever (28%), UTI(20%) is more common in TAHthan NDVH (16%,15%) Vaginal cuff cellulitis and vault granuloma was frequently seen in NDVH (44%, 20%) than TAH (24%, 0%). Abdominal wound infection in 3 cases (12%). The mean hospital stay of NDVH group was 5.18 days and for TAH group was 9.23 days. Maximum cases from NDVH group were discharged by 5th day (82.5%) and from TAH group maximum cases were discharged within 6 to 10 days (87.5%).

## CONCLUSION

Route of hysterectomy depends on choice, experience and expertization of surgeon and these things varies from individual to individual. Abdominal route is still most preferred route for hysterectomy. As in abdominal hysterectomy there is abdominal wound of 10-12 cm, that can lead to complications, like wound sepsis, more postoperative pain, febrile illness and long hospital stay. All these postoperative morbidities can be avoided in vaginal route of hysterectomy. In this study we had tried to provide proper evidence in support of better route of hysterectomy by comparing NDVH and TAH in terms of duration of surgery, blood loss, intraoperative complications, post-operative complications, post operative pain and hospital stay and we concluded that vaginal route of hysterectomy is safest and feasible operative procedure than abdominal route of hysterectomy in cases of fibroid uterus.

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