

# Comparison of Short Term Outcome between Vaginal and Abdominal Hysterectomy

Quddisia Tanveer, Anees Fatima, Mahpara Shoukat

## ABSTRACT

**Objectives:** To compare short term outcomes between vaginal and abdominal hysterectomy. **Subject and Method:** It was a cross sectional study and conducted in the department of obstetrics and gynecology unit - III, Jinnah hospital Lahore. Study was carried out over a period of one year from Jul 2013 to Jun 2014. Non probability purposive technique was used for sampling. A total of 134 patients were included in the study after fulfilling the inclusion criteria. The cases studied included 84 patients undergoing total abdominal hysterectomy and 50 cases of vaginal hysterectomy. The outcome measures were operative time, need for blood transfusion, postoperative febrile morbidity, wound infection, secondary hemorrhage and duration of hospital stay. **Results:** Mean age of the patient was  $51.2 \pm 5.3$  years and  $55.3 \pm 6.1$  years in abdominal hysterectomy group and vaginal hysterectomy group respectively. Fever was commoner in abdominal hysterectomy group i.e; 5.9 % compared to 2% in vaginal hysterectomy group. Mean duration of hospital stay after abdominal hysterectomy was  $3.0 \pm 0.6$  days and after vaginal hysterectomy, it was  $2.1 \pm 0.4$  days. Mean operating time in abdominal hysterectomy group was  $90 \pm 10.1$  minutes compared to vaginal hysterectomy group which was  $70 \pm 8.5$  minutes. Need for blood transfusion was lesser in vaginal hysterectomy group compared to abdominal hysterectomy group (8.33% VS 2%). **Conclusion:** Short term morbidity is lesser after vaginal hysterectomy compared to the abdominal hysterectomy.

**Key words:** Vaginal hysterectomy (VH), Transabdominal hysterectomy (TAH), morbidity.

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## INTRODUCTION

Hysterectomy is an effective treatment options for many gynecological conditions like fibroid, abnormal uterine bleeding, endometriosis, uterovaginal prolapse, pelvic inflammatory disease and malignancies of reproductive organs.<sup>1</sup> Nevertheless, abdominal hysterectomy remains the predominant method of uterus removal and ratio reported up to 6: 1. Most of the time vaginal hysterectomy (VH) is done for uterovaginal prolapse and abdominal hysterectomy for other benign condition. Abdominal hysterectomy has been preferred over the vaginal hysterectomy in the past however recent studies emphasize that vaginal hysterectomy should be preferred over the abdominal hysterectomy where possible.<sup>2, 3</sup> Vaginal hysterectomy meant quicker return to normal activities, fewer infections and episodes of raised temperature after surgery and a shorter hospital stay compared to abdominal hysterectomy. Vaginal hysterectomy is accepted as less invasive

than abdominal hysterectomy and there are reports of its preferential use as it has many advantages over abdominal hysterectomy.<sup>4, 5</sup> Current study is unique as the first of its kind in the institute. The rationale of this study was to reinforce that vaginal hysterectomy is a better option than total abdominal hysterectomy (TAH) for women in terms of febrile morbidity, operating time and length of hospital stay so that vaginal approach may be adopted as a preferred route for women requiring hysterectomy in our population where we have heavy work load with limited resources.

## OBJECTIVE

To compare short term outcomes between vaginal and abdominal hysterectomy.

## METHODOLOGY

It was a cross sectional study and conducted in the department of obstetrics and gynecology unit - III,

Jinnah hospital Lahore. The study was carried out over a period of one year from Jul 2013 to Jun 2014. Non probability purposive sampling technique was used. All the patients who underwent abdominal or vaginal hysterectomy during this period of one year due to benign conditions like fibroid uterus, dysfunctional uterine bleeding, menorrhagia, utero vaginal prolapse and adenomyosis were included for the study. Patients who had uterus size of > 12 weeks, history of pelvic surgery, adenexal pathology, malignancy, uncontrolled diabetes mellitus and uncontrolled hypertension were excluded from the study.

A total of 134 such cases (84 fulfilled the study criteria in abdominal hysterectomy group while 50 fulfilled in vaginal hysterectomy group). Febrile morbidity was defined as fever above 100.4° F lasting for more than 24 hours within 48 hours of surgery. Operating time was calculated in minutes from incision to closure. The observations like wound infection, need for intra operative or post-operative blood transfusion, visceral injury, need for reopen surgery were also recorded. Duration of hospital stay was recorded from morning of first postoperative day up to the day of discharge. Data was collected on specially designed Performa and it was entered into SPSS version 10. Mean  $\pm$  SD were calculated for patient age, operating time and duration of hospital stay in both groups and compared by applying t-test. Percentages were calculated for parity, febrile morbidity, need for blood transfusion, wound infection, visceral injury and need for re admission in both groups and compared by applying chi square test. A p-value  $\leq$  0.05 was considered significant.

## RESULTS

A total of 134 patients (50 in VH group and 84 in TAH group) were included in the study during one year period. Mean age was 51.2 $\pm$  5.3 years in TAH group while it was 55.3 $\pm$  6.1 years in VH group. In TAH group, 60% (n= 50) while in VH group 40% (n= 20) had parity less than 5. Dysfunctional uterine bleeding (DUB) was indication of hysterectomy in 42 (50%) and 11 (22%) of cases in TAH and VH group respectively. 31% (n=26) of patients underwent TAH due to fibroid uterus while 4% (n=2) of patients underwent VH due to fibroid uterus. Utero vaginal prolapse (UV prolapse) was indication of VH in 74% (n=37) of cases while no case of prolapse operated abdominally for obvious

reasons. 15.5 % (n=13) cases underwent TAH due to postmenopausal bleeding (PMB). Endometriosis was indication in 3.5% (n=3) of TAH group. Distributions of cases according to indications are also illustrated in figure 1 & 2. Fever was commoner in abdominal hysterectomy group. Difference between two groups was statistically significant i.e; p value 0.004 (table 1). Mean duration of hospital stay in TAH group was 3.0 $\pm$  0.6 days compared to VH group which was 2.1 $\pm$  0.4 days . Mean operative time in TAH group was 90  $\pm$  10 minutes while in VH group, it was 70  $\pm$  8.5 minutes with a p-value of 0.01. Readmission need was observed in 8.3% (n=7) of TAH group. Out of these 7 cases, five were due to wound infection and two were due to gastritis. One case of re admission due to vaginal bleeding was there in VH group and that too responded to conservative management. Need for blood transfusion arose in 8.33% (n=7) of TAH group while this was 2% (n=1) in VH group (p value <0.0001). No case of reopen surgery or visceral injury noted in both groups.

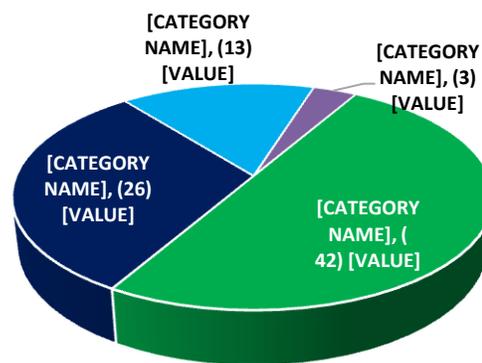


Figure 1: Distribution of cases according to indications of TAH

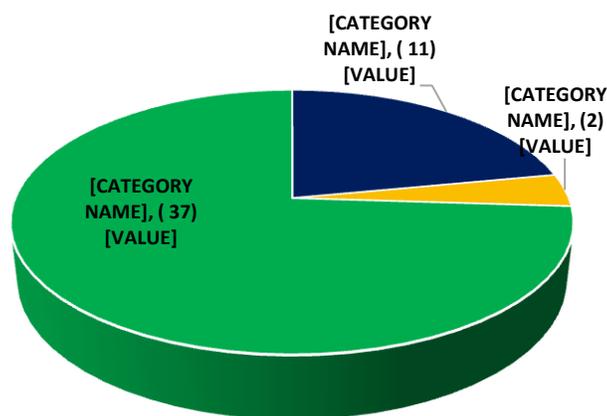


Figure 2: Distribution of cases according to indications of VH

**Table 1: Case distribution according to complications**

Sr. no	complication	TAH N=84(%)	VH N=50(%)	p-value
1	Febrile morbidity	5(5.9%)	1 (2%)	0.004
2	Mean operating time(min)	90	70	0.01
3	Bleeding requiring transfusion	7(8.33%)	1(2%)	<0.0001
6	Re admission	7(8.3%)	1(2%)	<0.0001

## DISCUSSION

Almost every gynecologist is aware of the approaches to effective and safe abdominal, vaginal and laparoscopic hysterectomy and should also be aware of correct indications for performing each of these procedures. However there is a great difference in the proportion of these hysterectomy types worldwide. Approximately 70-80% hysterectomies have been performed abdominally in the United States, the UK and the Finland, but only 30% in Austria. These wide variations among different countries, different units and indeed among different gynecologists indicate that after more than hundred year experience of hysterectomy, there is no worldwide consensus how to perform a hysterectomy in different situations. Although recent data have shown an increase in rates of minimally invasive hysterectomy, the majority of hysterectomies continue to be performed through abdominal routes<sup>6</sup>. This is in spite of a large body of evidence supporting that vaginal and laparoscopic hysterectomy are associated with less infectious morbidity, shorter hospital stay, and faster return to normal activity than abdominal hysterectomy<sup>7</sup>. Vaginal hysterectomy is also the most cost-effective type of hysterectomy. Based on these findings, vaginal and laparoscopic hysterectomy should be recommended over the abdominal route when possible<sup>8</sup>. The choice of method depends more upon the experience and biases of the gynecologists than upon a critical evaluation of the operative and outcome data. In the present study, duration of operative time in abdominal hysterectomy was more compared to vaginal hysterectomy (90± 10 minutes VS 70± 8.5 minutes). Pelvic infection is the commonest postoperative complication encountered after hysterectomy<sup>5</sup>. The complication rate in case of abdominal hysterectomy was more than that of

vaginal hysterectomy. Febrile morbidity rate was higher in abdominal hysterectomy group than those undergoing vaginal hysterectomy. In a study conducted by Amin A et al, it was found that vaginal hysterectomy was associated with lower febrile morbidity and minor complications.<sup>10</sup> Our findings are also consistent with the study carried out by Iram N et al.<sup>11</sup> In our study, the duration of hospital stay was longer in abdominal hysterectomy group compared to vaginal hysterectomy group (3.0± 0.6 days Vs 2.1± 0.4 days). The need for blood transfusion, re admission and wound infection rate were more in TAH group than the VH group. These findings are supported by the study performed by Pandey D et al.<sup>12</sup>

The present study is not without its short comings such as absence of research on long term complications like bowel and bladder functions, quality of life, sexual life, pelvic pain and prolapse after hysterectomy.

Going forward, it is therefore recommended to perform larger studies for research on long term complications of different hysterectomy procedures.

## CONCLUSION

Short term morbidity is less in vaginal hysterectomy shown by parameters of lesser febrile morbidity, most importantly shorter hospital stays. Significantly improved outcomes suggest vaginal hysterectomy should be performed in preference to abdominal hysterectomy where possible.

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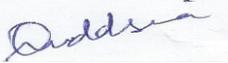
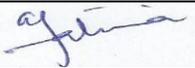
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