

VAGINAL HYSTERECTOMY IS SUPERIOR THAN ABDOMINAL HYSTERECTOMY

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ABSTRACT

Objective To determine the outcome of vaginal hysterectomy versus abdominal hysterectomy in terms of intra operative and post operative complications in women with benign uterine conditions.

Study design A comparative study

Place & Duration of study Baqai Medical University Karachi from November 2006 to February 2008.

Patients and Methods The study included 50 women who underwent vaginal hysterectomy (VH) and 50 women who had abdominal hysterectomy (AH) for benign uterine diseases. Inclusion criteria for vaginal hysterectomy were utero vaginal prolapse (UV prolapse), uterine fibroid less than 12 weeks size and dysfunctional uterine bleeding (DUB) and for abdominal hysterectomy (AH) were menorrhagia and pelvic pain, fibroid uterus, adenomyosis of uterus and dysfunctional uterine bleeding. Patients over 60 years of age, cancer of cervix and uterine malignancy were excluded from the study. Detailed history was taken and examination done. Routine investigations including ultrasound were carried out and hysterectomy was performed by clamp-cut and ligate method.

Results The mean age of patients was 52 years and parity between 4-10. The common indications for surgery in VH were UV prolapse 30(60%), DUB 15(30%), fibroid less than 12 weeks size 5(10%) while the common indications for surgery in AH were fibroid 20(40%), DUB 15(30%), menorrhagia and pelvic pain, 10(20%) and adenomyosis of uterus 5(10%). Among the intra operative complications there was one case of bladder injury in patient who underwent AH which was repaired. It was a case of previous C Section. There were 2(4%) cases of excessive haemorrhage (>500ml) one in each TAH & VH respectively. Early post operative complications like febrile morbidity was noted in each group, 10(20%) in AH and 5(10%) in vaginal hysterectomy, urinary tract infection in 4(8%) cases of VH and AH each. Wound infection in 6(12%) of AH and nil in VH. Paralytic Ileus in 4(8%) cases of AH and nil in VH. Vaginal vault haematoma in 2(4%) cases of VH while wound haematoma in 1(2%) cases of AH. Late complications like vaginal discharge was noted in 3(6%) of VH while 2(4%) cases of AH. There was 1(2%) case of vault granulation in each AH & VH.

Conclusions Vaginal hysterectomy is easy to perform and is associated with quicker recovery, early mobilization, shorter hospitalization, less operative and post operative morbidity, while abdominal hysterectomy is associated with longer duration of surgery, longer hospital stay, greater blood loss, more intra operative and post operative morbidity.

Key words Vaginal hysterectomy, Abdominal hysterectomy, Complications.

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INTRODUCTION:

Hysterectomy is one of the most commonly performed major operations following caesarean section.¹ Approximately 600,000 hysterectomies are performed in US each year,¹ 20% women in UK undergo

hysterectomy before the age of sixty years.² Vaginal route is preferable when there is no contraindication because of lower morbidity and quicker recovery. In vaginal hysterectomy, surgeon removes the uterus through the vaginal opening, while in abdominal hysterectomy uterus is removed through an abdominal opening. Laparoscopically assisted vaginal hysterectomy (LAVH) is associated with higher cost and long duration of operation and involves large number of specially trained staff. With increasing concern of health care costs there is need to perform hysterectomy via vaginal non laparoscopic method. The evidence based data strongly suggests that 80% of hysterectomies currently performed can be completed vaginally, taking full advantage of benefits in terms of quality of life, relief of symptoms and prevention of future health problems.

The purpose of this study was to determine the outcome of vaginal and abdominal hysterectomy in terms of intra operative and post operative complications in women with benign uterine conditions.

PATIENTS AND METHODS:

The study was conducted over a period of 16 months, from November 2006 to February 2008 in Gynaecology & Obstetrics Department of Baqai Medical University Karachi. All patients in the study were selected from consultant OPD. Patients age, parity, weight, menstrual history and presenting complaints were noted. Women presented with history of abnormal bleeding, pelvic infection and discomfort and something coming out of vagina. A complete general physical and pelvic examination was performed. Investigations including ultrasound were performed. Diagnostic curettage was done and malignancy excluded. All the patients were counselled about the disease and surgical procedure they had to undergo. Steps for hysterectomy were same in both types except in vaginal hysterectomy uterus was removed via vagina leaving behind the ovaries and tubes. Duration of operation was calculated from the time of incision to skin to the time of closure in AH and the time of incision in vagina till the closure (anterior colporrhaphy and posterior colpoperineorrhaphy) in vaginal hysterectomy. Blood loss was assessed by counting swabs and measuring the volume of blood collected by suction.

All patients received single dose of prophylactic intravenous antibiotic except patients with repeated pelvic infections who received course of antibiotic for seven days. The inclusion criteria for vaginal hysterectomy were UV prolapse, uterine fibroids less 12 weeks size and DUB. For abdominal hysterectomy were fibroid uterus, DUB, menorrhagia and pelvic pain and adenomyosis of uterus. Exclusion criteria were age over 60 years, suspected cancer of cervix and uterine malignancy. The analysis was performed by using SPSS version 10. Frequency and percentage were computed for presentation of all categorical variables. The Chi square test was used for calculating p value applicable for complications of hysterectomy.

RESULTS :

The mean age of patients was 52 years and parity between 4-10. There were 30(60%) cases of UV prolapse, 15(30%) cases of DUB and 5(10%) cases of fibroid uterus less than 12 week size in case of vaginal hysterectomy. While 20(40%) cases of fibroid uterus, 15(30%) cases of DUB, 10(20%) cases of menorrhagia and pelvic pain and 5(10%) cases of adenomyosis of uterus in abdominal hysterectomy. The mean duration of surgery of TAH was 90 + 5 minutes and blood loss was 300 to 350 ml, and that of VH was 75 + 5 minutes and blood loss was 250-350 ml.

Among the intra operative complications there was one case of bladder injury in patient who underwent TAH which was repaired. It was a case of previous caesarean section and there were gross adhesion between bladder and uterus. There were 2(4%) cases of excessive haemorrhage (> 500ml) one in each TAH and VH respectively, $p= 0.005$. Early post operative complications like febrile morbidity was noted in each group. There were 10(20%) cases of TAH and 5(10%) cases of VH, $p= 0.05$.

Urine infection was found in 6(12%) case of TAH and 4(8%) of VH, $p= 0.04$. Wound infection leading to febrile morbidity was found in 6(12%) cases of TAH while nil in VH. Paralytic ileus was noted in 4(8%) cases of TAH while nil in VH. Vaginal vault haematoma was seen 2(4%) cases of VH while wound haematoma in 1(2%) case of TAH.

Late complications like vaginal discharge was noted in 3(6%) cases of VH while 2(4%) cases AH. There was 1(2%) case of vault granulation in VH and 1(2%) case of TAH. There were 3(6%) cases of febrile morbidity in TAH group and 1(2%) case of VH group during follow up in second week. They were readmitted and treated.

DISCUSSION

Hysterectomy is the common major gynaecological surgery performed all over the world after caesarean section. Review of recent studies conclude that surgeons should perform vaginal rather than abdominal hysterectomies whenever possible in order to cut down complications and the length of hospital stay. According to systematic evidence review by Johnson N women who had VH had fewer infection and high temperature after surgery compared to those who had abdominal hysterectomies. Dicker and his associates in their study found that TAH has 1.7 times more risk of complications than VH.⁴ Wound infection was major cause of febrile morbidity in TAH group in our study. Hospital stay was also longer in our study. This finding is consistent with the study done by Ottosen and his associates and Dicker and his associates. The advantages of vaginal hysterectomy are that it leaves no visible scar and is less painful but surgeon cannot see the uterus and surrounding tissue. Large fibroid cannot be removed using vaginal approach and also if the ovaries are involved in disease process.⁵

In AH main indications usually are fibroid uterus, menstrual irregularities, DUB and adenomyosis of uterus, with DUB and adenomyosis size of ut is usually suitable to be delivered vaginally but in case of fibroid uterus when it is more than 12 weeks pregnancy size VH is difficult. Uterus as big as 20 weeks pregnancy size have been removed vaginally without any added morbidity.⁵ Experienced people have considered vaginal approach as a route of choice for performing hysterectomy in patients with previous caesarean section.^{6,23} Preoperative administration of GnRH analogue is a helpful option in patients with big uteri, it will reduce the size of fibroid by producing pseudomenopause state. AH is also safe in nuliparous women because the uterus is well supported with no obvious descent. If uterus can be pull down and is freely mobile with no adnexal pathology VH is possible.

Coming to the post operative complications recently a study concluded that LAVH was associated with a significantly higher rate of major complications than abdominal hysterectomy. LAVH took longer time to perform but was associated with less pain, quicker recovery and better short term quality of life.^{6,7} The post operative recovery is better in patients who are obese and poor surgical risk case with fewer complications.^{8,11} There are certain conditions where a vaginal route is not considered safe and should be avoided. These are the patients with adnexal pathology, restricted uterine mobility limited vaginal space, previous vesico vaginal repair and invasive cancer of the cervix.⁹ More studies are being conducted in the developed world over the LAVH because the length of hospital stay and time to return to normal function were shortened. When compared with VH and TAH, the operating times were similar in LAVH and TAH but complications were greater for TAH. In comparison of all procedures, direct hospital costs were greatest for LAVH and least for VH.^{10,11}

In the study conducted by Robert KS in LAVH, the rate of complication was 3.6% as compared to 5.3% in VH and 9.3% in TAH.¹² William L state that adoption of LAVH has been extremely slow because of its cost and surgical expertise required for it.¹³ The only advantage of LAVH over VH is that it helps in viewing the additional pelvic pathology.¹⁴ On the other hand pelvic adhesions due to various underlying diseases are associated with increase complications and conversion rates during LAVH. Such procedures takes longer operational time and more blood loss.¹⁵ In a randomized trial by Summit et al outcome of VH was similar to those of LAVH but with significant lower cost.¹⁶ Ram P and colleagues used electro-cautery for uterine artery leading to less bleeding.¹⁷ There is a study design by Cohens J to calculate the mean operative time in VH and LAVH stratified by uterine weight. There was a significant linear correlation between operative time and uterine weight so large uteri take longer operative time and thus LAVH take much longer time than VH group.^{18,19,20} In all studies carried out on vaginal hysterectomy either laparoscopically assisted or trans-vaginally the consensus is that vaginal hysterectomy is the best choice in properly

selected cases.

CONCLUSIONS:

Vaginal hysterectomy is a procedure of choice for properly trained surgeon because it is associated with quicker recovery, less operative and post operative morbidity and is cost effective in our setup where facilities for LAVH are not available to all patients and trained personal are also few in our country.

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