

# Outcome of Patients Abdominal Versus Hysterectomy for Benign Gynaecology Diseases at Liaquat University Hospital

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## Abstract

**Objective:** To compare the outcome of abdominal versus vaginal of hysterectomy in terms of hospital stay, the rate of complications and patient's satisfaction.

**Study design and setting:** This was an observational study and carried out at Gynae and Obs department of LUMHS Jamshoro, from December 2010 to August 2013.

**Methodology:** A total of 90 patients with the benign gynecological disease were included. Patients with Gynecological malignancies and emergency obstetrical hysterectomies were excluded. Patients received in the outdoor department with a fibroid, adnexal mass, abnormal vaginal bleeding, pelvic inflammatory disease, endometriosis, uterovaginal prolapse and were admitted. All the patients were underwent an abdominal or vaginal hysterectomy. Data was recorded on pre-designed proforma.

**Results:** The mean age was  $48.34 \pm 11.3$  years. Intraoperative complications were more significant in abdominal hysterectomy p-value of 0.001. Post-operative complications were also significantly high in patient underwent abdominal hysterectomy as compared to vaginal hysterectomy p-value 0.001, as out 50 cases of vaginal hysterectomy 16.0% were found with postoperative febrile morbidity, 3.0% had paralytic ileus, 6.0% had developed wound infection and 6.05 were found with thrombophlebitis, while only one case had developed vault haematoma in patients of vaginal hysterectomy. Mean of the Hospital stay was significantly higher  $6.33 \pm 2.32$  days in patients of abdominal hysterectomy, p-value 0.001. Most of patients 28(70.0%), of vaginal hysterectomy showed significant satisfaction, p-value 0.001.

**Conclusion:** It is concluded that vaginal hysterectomy is the best route of hysterectomy for utero vaginal prolapse (descent of uterus) it can be done safely for other benign conditions of the uterus (non-descent of the uterus).

**Key words:** Benign gynecological diseases, Abdominal hysterectomy, vaginal hysterectomy

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## Introduction

The precise meaning of a simple hysterectomy is the removal of the uterus. Though, in numerous circumstances, has been removed as part of the surgery varies with another body part such as the cervix, ovaries and fallopian tubes. Abdominal extraction of uterus is total abdominal hysterectomy and subtotal hysterectomy is supracervical.<sup>1</sup> Charles

Clay makes first subtotal hysterectomy in Manchester, England in 1843 and the first issue in 1929.<sup>2</sup> Later on early 20th century, hysterectomy is a definitive treatment for pelvic pathology including fibroids, weight abnormal bleeding, chronic pelvic pain, endometriosis, adenomyosis, uterine prolapse, pelvic inflammatory disease and cancer of the reproductive organs.<sup>3</sup> It is

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one of the record collective surgical techniques having a rate of 6.1-8.6/1000 in all ages.<sup>4</sup> Twenty percent of women in the UK and 37% in the United States have had a hysterectomy at the age of 60 years. The lifespan risk of hysterectomy is 25% in the United States, 10.5% in Denmark and 28/10 000 NHS hospital in England and Wales, per anum.<sup>5</sup> Prevalence of hysterectomy United Kingdom is 100,000 / anum, 500 000 / anum in the United States and less than 70,000 in studies of the prevalence of hysterectomy in England.<sup>5</sup> Hysterectomy prevalence studies not available in Pakistan.<sup>6</sup> Gynecologists prefer abdominal hysterectomy, around 60-80% of hysterectomies in the United States and the United Kingdom.<sup>5,7</sup> Eighty-three percent of gynecologists recommend oophorectomy in postmenopausal women, Fifty percent among perimenopausal women and less than five percent in premenopausal women at the stage of hysterectomy abdominal hysterectomy is safe.<sup>8</sup> Quick total, but does have 1% chance of developing cervical cancer in the stump and 5% incidence of persistent blood stained discharge residual endometrium. With the induction of vaccines against HPV, the risk of cervical cancer is minor and remains cervical stump enhances female sexual reaction and care against bowel & bladder dysfunction.<sup>5</sup> Substitute of hysterectomy is levonorgestrel let loose intrauterine system (LNG-IUS), endometrial ablation, myomectomy and uterine artery embolization. LNG-IUS is active in reducing menstrual loss but on failure ends upon hysterectomy. Endometrial ablation techniques have short functional time and hospital stay, quicker recovery and fewer post-operative complications, but long term studies showing narrowing of the gap. Hysterectomy appears to have consistently higher rates of satisfaction. Myomectomy results in an overall 80% resolution of menorrhagia symptoms but associated with post-operative morbidity and longer hospital stay, 4-47% risk of recurrence and 98% risk of adhesion formation. The umbilical vein embolization gives 60-90% rate of enhancement & 70 and the rate of withdrawal of the fibroma hysterectomy rate is 0.2% 0.5 Final diagnosis is only on histology, so that the whole piece will undergo a hysterectomy to a histopathological examination.<sup>7</sup> Major postoperative difficulties such as dysfunction of the pelvic organs are not common. Young women treated with Pelvic vascular for 3 fibroids are at greater risk than women with a visceral injury. Visceral lesions rates are 0.5-2%.<sup>5</sup> Vault granulation occurs in 21% of women after a total abdominal hysterectomy, although sutures are used polyglactide.

They often cause symptoms.<sup>9</sup> The ration of mortality hysterectomy is 0.5-2 /1000.<sup>5</sup> The purpose of my study is to compare he outcome of abdominal versus vaginal hysterectomy in terms of complications, hospital stay and patient satisfaction.

## Methodology

This observational study was done at the department of Obstetrics and Gynecology unit: IV Liqueate University of Medical and Health Sciences, Jamshoro. All the cases with benign gynecologic disease expected to undergo abdominal or vaginal hysterectomy were included in this study. All the women with malignant tumors, gynecological and obstetric emergency hysterectomy were excluded. This study was conducted from December 2010 to August 2013.

All the women operated of benign gynecological problems meeting the criteria were included in the study. Informed consent was taken. Patients received in the OPD with fibroid adnexal mass, abnormal vaginal bleeding, pelvic inflammatory disease, endometriosis, uterovaginal prolapse were admitted. After correction of anemia and other health problems, in collaboration with the medical team, the surgery was performed. Data were documented in the predefined preform. Patients were evacuated from the third to the fourth postoperative day after receiving the pathology report. Follow-up was performed every two weeks to six weeks. Preoperative single dose prophylactic antibiotics were administered to all patients. The intraoperative bleeding, damage to surrounding structures was found. Postoperative complications were classified into early (during the hospital stay and at the end (after discharge). Postoperative complications included anemia, wound infection, hematoma formation, urinary tract infection (UTI), lung infection, Deep vein thrombosis (DVT), pulmonary embolism, myocardial infarction secondary hemorrhage, fistula formation and death. Late complications include bleeding; symptoms of secondary abstinence patients undergoing oophorectomy include flashes, anxiety, depression and mood changes. Patient's satisfaction was also assessed. All the data was entered by two separate individuals to assess validity. The data were entered into SPSS version 17 for analysis.

**Data analysis:** The mean and standard deviation were calculated for continuous variables such as age, parity, body mass index, the amount of blood loss and length of stay in the hospital. Frequency and percentages were calculated for categorical variables. Chi-square

test was used to compare categorical variables and p-value less than 0.05 was considered as significant.

## Results

A total of 90 patients were enrolled in this study. Patient's mean age was  $48.34 \pm 11.3$  years, mean parity was  $2.7 \pm 1.6$  and mean of body mass index was  $26.7 \pm 2.4$  kg/m. No significant difference was found in both groups according to patient's presentation p-value 0.086. Insignificant difference was also found in both groups according to BMI, p-value 0.61. In group 1 30(60.0%) women were premenopausal and 20 (40.0%) were postmenopausal, while in group 2; 28(70.0%) women were premenopausal and 12 (30.0%) were postmenopausal, both groups were insignificant according to menopausal status p-value 0.25. results showed in **table I**.

Demographic variables	Hysterectomy		
	Vaginal (n=40)	Abdominal (n=50)	P-value
<b>Age groups</b>			
<40 years	14(28.0%)	14(35.0%)	0.65
41-50 years	14(28.0%)	14(35.0%)	
51-60 years	11(22.0%)	04(10.0%)	
> 60 years	11(22.0%)	08(20.0%)	
<b>BMI</b>			
Less than 25	10(25.0%)	10(20.0%)	0.61
More than 25	30 (75.0%)	40(80.0%)	
<b>Menopausal status</b>			
Perimenopausal	30(60.0%)	28(70.0%)	0.25
Post-menopausal	20 (40.0%)	12(30.0%)	
<b>Presentation</b>			
Uterine prolapse	20(40.0%)	13(26.0%)	0.086
Abnormal uterine bleeding	05(12.5%)	17(34.0%)	
Abdominal Mass (fibroid uterus)	05(12.5%)	10(20.0%)	
Pain in lower abdomen	10(25.0%)	10(20.0%)	

Complications of hysterectomy were reviewed among 90 patients 40 (44.44%) developed complication, and out of them 35 cases had abdominal hysterectomy while 5 cases had vaginal hysterectomy. 22(44.0%) patients had blood loss of more than 500ml during abdominal hysterectomy and mostly were underwent blood transfusion further only one patient was found with anesthetic complication, while no any intraoperative complication was found in patients those were underwent vaginal hysterectomy. Two case of

vaginal hysterectomy had bladder injury, and only one cases of abdominal hysterectomy had bowel injury, intraoperative complications were more significant in abdominal hysterectomy p-value 0.001. Post-operative complications were also significantly high in patient underwent abdominal hysterectomy as compare to vaginal hysterectomy p-value 0.001, as out 50 cases of vaginal hysterectomy 16.0% were found with postoperative febrile morbidity, 3.0% had paralytic ileus, 6.0% had developed wound infection and 6.05 were found with thrombophlebitis, while only one case had developed vault haematoma in patients of vaginal hysterectomy, results showed in **table II**.

Mean of the Hospital stay was significantly higher  $6.33 \pm 2.32$  days in patients of abdominal hysterectomy, while mean of Hospital stay was  $2.05 \pm 1.11$  days in patients those were underwent vaginal hysterectomy, p-value 0.001. results showed in **table III**

Complications	Hysterectomy		
	Vaginal (n=40)	Abdominal (n=50)	P-value
<b>Intra-operative</b>			
Blood loss >500ml	00	22(44.0%)	0.001
Anesthetic complications	00	01(02.0%)	
<b>Injury to viscera's</b>			
Bladder	02(05.0%)	00	0.001
Ureter	00	00	
Bowel	00	01(02.0%)	
<b>Post-operative</b>			
Febrile morbidity	00	08 (16.0%)	0.001
Paralytic ileus	00	03 (06.0%)	
Wound infection	00	03 (06.0%)	
Thrombophlebitis	00	03 (06.0%)	
Vault Haematoma	01(02.0%)	00	

Variables	Hysterectomy		
	Vaginal (n=40)	Abdominal (n=50)	P-value
<b>Hospital stay (Mean<math>\pm</math>SD)</b>	2.05+1.11 days	6.33+2.32 days	0.001
<b>Satisfaction</b>			
Satisfied	28(70.0%)	08(16.0%)	0.001
Not satisfied	12(30.0%)	42(84.0%)	

Patients of vaginal hysterectomy showed significant satisfaction as 28(70.0%), while most of the cases

42(84.0%) out of 50 of abdominal hysterectomy were unsatisfied p-value 0.001.

## Discussion

Hysterectomy is the most common elective technique in the world, in England more than 70,000 hysterectomies performed annually and even higher proportions in the United States. Pakistani women look for medical help later than women in advanced countries if conservative treatment may not be available for them. Furthermost of the time hysterectomy is the best choice for a gynecological problem.<sup>10</sup> There were no recent studies based on the population in Pakistan providing hysterectomy prevalence estimates, but has always been concerned about the high rate of this procedure. About 20% of women have had the procedure at the age of 60, approximately 40% of these for Dysfunctional uterine bleeding (DUB) without gynecological pathology.<sup>11</sup> Total 90 cases of hysterectomy registered in our study between 55.55% had an abdominal hysterectomy, whereas 44.44% in vaginal hysterectomy disappeared. Abdominal approach is used in most cases. Vaginal it is retained for cases of genital prolapse. In the United Kingdom and the United States following the 60 to 80% are abdominal hysterectomies. Abdominal approach is associated with more hospitalizations, greater complications and increased cost, but because the practice styles, training habits and actions of maximum obstetrician gynecologist still using the method of abdominal hysterectomies could be executed vaginally. Abdominal approach is the choice for the most serious and vaginal way is suitable for less serious diseases.<sup>5,7,12,13</sup>

In our research, the mean age was 48.24, mean parity was  $2.7 \pm 1.3$ . In the comparison of this study Ambreen F et al<sup>14</sup> reported that the mean age was 50 years in patients of vaginal hysterectomy and 52.5 years in patients of abdominal hysterectomy. The mean parity was 9 in vaginal hysterectomy and 4 in abdominal hysterectomy. The change in parity is because the population below the high birth rate and they also reported that eight patients were high parity grand multipara which is comparable to our study.

In our study, 22 (44%) were smokers, 20 (40%) patients have a status comparable to perimenopause study that showed 43% of women were smokers.<sup>14</sup> uterus vaginal prolapse, abnormal uterine bleeding and weight abdominal was the joint presentation. In our main indication of the study for abdominal hysterectomies were menstrual disorders (34%)

reported 35.<sup>15</sup> Zaiba Sher et al<sup>15</sup> stated that hysterectomies were carried out for DUB. In two additional studies on the incidence of menstrual problems was 45% this extraordinary rate of hysterectomy is that it could be due to non-compliance with medical treatment and lack of availability of minimally invasive techniques for the treatment of DUB. Fibroids uterine is the second leading indication for abdominal hysterectomy (30%) is almost comparable to study in Karachi showed leiomyoma (22.2%) was the second cause of hysterectomy.<sup>10</sup> In many studies, it is the main indication for hysterectomy. Most patients in our study were 40 years old and had completed the family favorite this operation because of its persistent symptoms, poverty and recurrent nature of fibroids after myomectomy. To reduce the number of hysterectomies and complications associated with alternative method less invasive treatment can be tried. There is now a growing number of non-surgical hysterectomies for uterine fibroids uterine artery embolization (UAE) alternatives. Uterine artery embolization has been advocated as a treatment for uterine fibroids. It is the least invasive of those who want to preserve the uterus, but in our configuration of these facilities option are not available. Gn RH agonist significantly reduced the size of the fibroids and the bloodstream, but is not favored by the high cost, post-menopausal symptoms and the need to add therapy.<sup>16-18</sup>

Forty patients have developed complications among 90 patients, even 40 patients developed complications 35 underwent an abdominal hysterectomy and 5 were subjected to vaginal hysterectomy. The most common intraoperative complication in our study bleeding more than 500 ml was in (44.0%) patients and underwent blood transfusion blood transfusion. The incidence of visceral damage in our study was 3.33%. three patients had visceral injuries during procedure. one of them had intestinal injuries and two were injured bladder, patients had intestinal lesion underwent surgery for endometriosis and intestine was poorly adherent to the uterus, postoperative patients remained alright. Two patients injuries bladder were performed vaginally for vaginal prolapse uterus, had a previous uterine scar and bladder scar above fulfilled. The bladder was repaired. Postoperative difficulties included infections such as urinary tract infections, infections of the chest, wound infections and fever. The most common complication was infection can be due to poor resistance and long-term anemia due to heavy menstrual bleeding, poverty in our population, lack of prophylactic antibiotics and obesity.<sup>19-21</sup> Late

complications were pelvic pain and psychological disorders such as depression, dyspareunia 3-6 months after surgery. They were given symptomatic treatment, relief and sensitive support. The mean period of hospital stay was 11.8±5.1 days and overall 20 (40%) patients were satisfied with the procedure.

## Conclusion

It is concluded that vaginal hysterectomy is the best route of hysterectomy for utero vaginal prolapse (descent of uterus) it can be done safely for other benign conditions of the uterus (non-descent of the uterus). There was less blood loss, shorter hospital stays and greater patient satisfaction in vaginal hysterectomy versus abdominal hysterectomy so that our study found that vaginal hysterectomy is the best route for hysterectomy uterine vaginal prolapse (descent of the uterus), but it seems that even tertiary care hospital LUMHS as it is not common practice for the uterus is not just a benign disease if we recommend preferably, if can all hysterectomies should vaginal hysterectomies due to shorter hospital stays, fewer complications, and decreased productivity of the loss of time

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