

Abdominal Hysterectomy at the University of Ilorin Teaching Hospital. Ilorin - A 5-Year Review

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Summary

Hysterectomy remains a major gynaecological operation for both benign and malignant gynaecological conditions in this environment. To evaluate the incidence, indications for abdominal hysterectomy and associated morbidity and mortality. This is a retrospective analysis of all cases of abdominal hysterectomies performed at the University of Ilorin Teaching hospital over a five year period from January 1996 to Dec., 2000. A total of 1181 major gynaecological operations were performed, of which 164 were abdominal hysterectomies, giving an incidence rate of 13.8% of major gynaecological surgeries. Majority of the women were in their 4th and 5th decades of life accounting for 47.2% and 21.5% respectively. Grand multiparous women accounted for 39.6% of the cases and nulliparous women constituted 5.2% of the cases. The commonest indication for abdominal hysterectomy was uterine fibroid in 72.7% of the cases. Obstetric indications accounted for 8.0% of cases. The commonest complication was post-operative pyrexia and occurred in 33.1% of patients. A mortality rate of 1.8% was recorded in the study. Abdominal Hysterectomy is a safe operation that can be performed by a skillful gynaecologist of today. Adequate preoperative preparation, use of autologous blood transfusion, where possible and good obstetric services will help reduce the morbidity and mortality associated with the operation.

Keywords: Abdominal Hysterectomy, Morbidity, Mortality

Introduction

With the refinement in surgical technologies, improved anaesthesia, use of antibiotics and blood transfusion, hysterectomy has become the commonest major gynaecological operation performed in women of reproductive age group in the developed countries.¹⁻³ Though for socio-cultural reasons, hysterectomy is not as commonly performed in Nigeria, it is still one of the major gynaecological operations performed in this environment. An incidence rate of 10.2% of major gynaecological surgeries has been reported in Ibadan while at U.I.T.H, 57.2% of patients managed surgically for uterine fibroids had abdominal hysterectomy^{4,5}.

The available literature shows that the commonest indication for abdominal hysterectomy is uterine fibroids⁴⁻⁶. Another major indication is obstetric indications (ruptured uterus, massive postpartum haemorrhage among others) as 33% of patients with ruptured uterus in this

centre were treated by abdominal hysterectomy⁷. The morbidity rate associated with this operation continues to be a problem though the mortality rate is now low with complications of some sort occurring in as many as 50% of cases of abdominal hysterectomy⁸. The morbidity rates between 31% and 65% have been reported from different areas in the country; this has been attributed to advanced pathology in most patients at presentation. The high pyrexial morbidity may also be due to malaria infestation with reduced immune response following surgery⁹. Injury to the urinary tract during surgery is another major complication and abdominal hysterectomy has been found to be second only to caesarean section as a cause of ureteric and bladder injuries¹⁰⁻¹². Other complications include pelvic haematoma, injury to the bowels and vault prolapse as a late complication^{4,6,13}.

Even though there are relevant literature on hysterectomy in Nigeria, there has not been a review from Ilorin, hence this study. Objective of the study is to determine the incidence, indications and complications of

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this commonly performed operation and to suggest possible ways of reducing or preventing associated complications.

Materials and Methods

This is a retrospective study of all cases of abdominal hysterectomies carried out at the University of Ilorin Teaching Hospital from January 1996 to December 2000. The case records were retrieved from the record office and supplementary data were obtained from theatre and ward records. One hundred and ninety four case records were retrieved; 30 of these had vaginal hysterectomy and the remaining 164 had abdominal hysterectomy. Ten of the abdominal hysterectomy case records were not complete for analysis leaving 154 case records for the study. These records were analysed for age, parity indications, complications, use of blood transfusion and length of hospital stay. Statistical analysis was done using simple percentages and frequency tables.

Results

There were 1181 major gynaecological surgeries during the study period, of which 164 were abdominal hysterectomies giving an incidence of 13.8%. Seventy-one (42.4%) of these had total abdominal hysterectomy and bilateral salpingo-oophorectomy (TAH and BSO) while the ovaries were conserved in the rest. Subtotal hysterectomy was done in 5.2% of cases and all were cases of obstetric haemorrhage.

Table 1: Bio-Social Data of Women who had hysterectomy

Age (Yrs)	No of Patients	Percentage of patients
20-29	11	7.15
30-39	27	17.55
40-49	73	47.26
50-59	33	21.46
>60	10	6.58
Total	154	100.00
Parity		
0	8	5.2
1-2	36	23.4
3-4	49	31.8
>5	61	39.6
Total	154	100.0
Educational Status		
None	32	20.7
Primary/Koranic Sch	59	29.8
Secondary	42	37.0
Post Secondary	21	13.6
Total	154	100.0

Table 1 shows some of the sociodemographic characteristic of the 154 patients. One hundred and thirteen (73.4%) were in the age range of 40-49 while 21.5% of

patients were in their 6th decade. The age group of 20-29 constituted 7.2%. The mean age and parity at hysterectomy were 44.6 years and 3.8 respectively. Most (55.2%) of the women were multiparous women with 39.6% being grandmultiparous while 5.2% of patient were nulliparous. The educational level of the patients is as shown and generally reflects the trend in the environment.

Table 2 Indication for Surgery by Parity of Patients

Indication	0	1-2	3-4	>5	Total	% of Patients
Uterine fibroids	2	29	38	43	112	72.7
Obstetrics reasons (Ruptured uterus, PPH)	-	2	3	9	14	9.1
CIN/Carcinoma cervix	-	1	2	7	10	6.5
Ovarian Neoplasm	2	1	3	1	7	4.5
Carcinoma of endometrium	1	2	1	-	4	2.6
Dysfunctional uterine Bleeding	-	2	-	2	4	2.6
Abortion Relation Complications	2	1	-	-	3	1.3
Total	7	38	47	62	154	100.0

Table 2 shows that the commonest indication was multiple uterine fibroids constituting 72.7% while 9.1% were done for obstetric peripartum reasons (7 ruptured uteri, 6 uterine atonia and 1 placenta accreta). Three (1.9%) patients had hysterectomy for abortion related complications. Majority (62.9%) of the patients lost between 500-999mls while 23.3% lost less than 500mls. 1.9% lost more than 1,500mls (these were three obstetrics cases) complications of surgery by the types of indication is shown in Table 4. Fifty one (33.1%) patients had post-operative pyrexia while 18.1% had anaemia and 3.2% had septicaemia (mainly obstetric cases). Injuries to ureters (2 cases) and bladder (1 case) occurred in (3 patients) 1.9% of cases. Table 5 shows that a total of 65 patients (42.5%) had blood transfusion, with (47)30.5% of them requiring 2-3 pints of blood. While 13(8.4%) patients had only 1

Table 3 Blood loss at surgery by indication for surgery

Indication	<500mls	500-999mls	1000-1499mls	>1500mls	Total
Fibroids	31	79	2	-	112
Obstetrics reasons	-	3	9	2	14
CIN/Carcinoma of cervix	-	1	2	-	3
Ovarian Neoplasm	-	3	3	1	7
Carcinoma of endometrium	-	3	1	-	4
Dysfunctional uterine Bleeding	2	2	-	-	4
Abortion Related Complications	1	1	1	-	3
Total	35	98	18	3	154
	(23.3%)	(62.9%)	(11.6%)	(1.9%)	(100%)

Table 4 Complications of Surgery by indication

Indication	Uterine Fibroid	Obstetric reasons	CIN/Ca Cervix	Ovarian Neoplasm	Carcinoma Endometrium	Abortion related Complication	Total	% of Patients
Pyrexia	43	2	2	3	1	-	51	33.1
Anaemia	8	14	1	2	-	3	28	18.1
Urinary Tract infection	6	3	1	1	-	2	13	8.4
Septicaemia	-	5	-	-	-	-	5	3.2
Wound infection	7	4	-	1	1	2	15	9.7
Urinary Tract injury	1	2	-	-	-	-	3	1.9
Burst Abdomen	-	1	-	-	-	-	2	1.3
Total	65	31	4	7	2	8	117	100.0

Table 5: Length of Hospital Stay

Days	No of Patients	% of patients
5-6	47	30.6
7-10	85	55.0
>11	22	14.4
Total	154	100.0

pint, five (3.2%) patients had four or more pints of blood. (these were mainly obstetric cases). 85 (55%) of the patients stayed for 7-10 days while 30.6% stayed for 5-6 days. The remaining 14.8% stayed for 11 days or more (These were mainly those who had surgery for cancer and for obstetric reasons. The 5-6 days group had subcuticular suturing which did not require removal.

Three deaths were recorded during the study period giving a mortality rate of 1.8% (180 per 10,000 hysterectomies). Two of these were patients with ruptured uteri. The third was a case of ovarian neoplasm who died on the 8th post operative day from possible thromboembolism. 71% of the surgeries were performed by the consultants, 21% performed by senior registrars under supervision whereas 8% of surgery were performed by senior registrars without supervision. Two of the three dead cases involved the senior registrars while the remaining one was done by the consultant.

Discussion:

The 13.8% incidence rate of all major gynaecological operations recorded in this study is high when compared with the 10.6% recorded in Ibadan;⁴ this can be partly attributable to the fact that Ibadan studied only hysterectomies done for benign gynaecological conditions. This incidence is low when compared with the rate in the developed countries like USA where it is estimated that 1 in 3 women will undergo hysterectomy in their life time.⁸ This is because of the socio-cultural importance attached to the uterus by the women-folk in this environment. The uterus is seen as a mark of femininity and its removal is only accepted as a last resort when

pathology would have become invariably advanced.^{3,6} The majority of the patients were in the fifth and sixth decades accounting for 47.3% and 21.4% respectively and is similar to the experience from other centres^{4,6}. Most of the women were also multiparous with the grandmultiparous constituting 39.6%. This could be attributed to the fact that women who had children will more likely agree to the removal of the uterus while the nulliparous women will likely want to retain their uterus even in presence of advanced pathology with the hope of bearing children in the future.

The commonest indication for abdominal hysterectomy in UIH is uterine fibroids, accounting for 72.7% of the cases - in keeping with finding from other centres^{4,6}. Obstetric indications especially rupture of the uterus was also fairly common as shown by the study of Aboyeji et al at this centre which showed that uterine rupture is still a common obstetric hazard in our environment. Hysterectomy for abortion related complications as seen in 1.9% shows that unsafe abortion is still rampant and reflects the tragedy of unsafe abortion in this environment as these were usually done by unqualified personnel and in unhygienic environment. The type of surgery done was total abdominal hysterectomy and bilateral salpingo-oophorectomy in 42.7% in keeping with the age and indication for the surgery. Sub-total hysterectomy was done in 5.2% of cases and all were for obstetric reasons. Subtotal hysterectomy is said to be an unpopular procedure particularly in this environment because of the risk of carcinoma of the cervical stump but as shown in this study, it still has a place as a saving procedure in obstetric haemorrhage^{7,19}.

Post operative pyrexia occurring in 33.1% of patients is the most common morbidity, consistent with the findings of other studies¹⁰⁻¹¹. This can be partly attributed to frequent malaria infestation, reduced immune response from the stress of surgery and the blood transfusion given to some of these patients. Wound sepsis, urinary tract infections particularly following prolonged catheterization and septicaemia were important febrile complications noted in this study. Injury to urinary tract was also recorded and confirms the occurrence of ureteric injuries commonly

seen following hysterectomy¹⁰⁻¹². It is therefore imperative that the surgeon performing the hysterectomy be cautious and painstaking in delineating the course of the ureters in individual cases as this assist in preventing ureteric injuries. Late complications like vault prolapse and sexual dysfunction were not documented in the patients records.

Blood transfusion was given to 42.3% of the patients. The trend in use of blood shows that there is a progressive reduction in blood use through the years of the study. The trend is most likely as a result of increase in awareness of possibility of HIV infection from blood transfusion by both the health personnel and general public leading to more cautious use of blood. This is further confirmed by the fact that the 8.4% who had only 1 point of blood were all in the last two years of the study.

The length of stay in the hospital was 7-10 days in majority of patients and this compares well with other studies^{4,6}. The 22% who stayed for 14 days or more were as a result of complications related to surgery or the initial pathology they had. The mortality rate of 180 per 10,000 recorded in this study is higher than the 12 per 10,000 reported by Bachmann²⁰. Most of the mortality recorded occurred in patients who had hysterectomy for obstetric reasons especially uterine rupture. The high mortality associated with this group is because these patients are usually in very poor condition from acute blood loss even before the operation.

Abdominal hysterectomy is a safe operation which can be performed by the skilful gynaecologist. Adequate preoperative preparation of patients and use of appropriate antibiotic prophylaxis will ensure that the morbidity from this procedure is kept to the minimum. In view of the possible risk of HIV transfusion, use of autologous blood transfusion, where applicable, will help prevent some of the complications associated with blood transfusion. The length of hospitalization of patients can also be reduced by use of suturing technique that will allow earlier removal or require no removal in appropriate cases as was done in the 30. % who stayed for 5-6 days. Provision of accessible, available and affordable obstetric services and utilization of these services by pregnant women will ensure proper and optimal peripartum care leading to reduction in obstetric complications especially uterine rupture which has been shown in this study to account for most of the mortality and significant morbidity associated with abdominal hysterectomy²¹.

Advances in technology in the developed countries led to development of alternative to conventional abdominal hysterectomy. These alternatives are all forms of minimal access surgery mainly designed for women with menorrhagia and having uterine size of not more than twelve weeks. These include laparoscopic hysterectomy, laparoscopic assisted vaginal hysterectomy (LAVH) and laparoscopic supra-cervical hysterectomy^{1,2}. All these alternatives have been found to be better than

conventional abdominal hysterectomy in terms of reduced post operative pain and analgesic requirement^{13-17,19,20}. There is associated faster recovery, shorter hospital stay and also reduced cost. These treatment modalities are as yet unexplored in this environment because of lack of facilities and possible expertise. It is therefore recommended that efforts be made to train more gynaecologists and residents in minimal access gynaecological surgeries in the nearest future

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