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Original Article

Hysterectomy for gynaecological conditions in Irrua: a six-year review.

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Abstract

Background: Hysterectomy is the surgical removal of the uterus through an abdominal or vaginal route. It is a very common major surgery in gynaecological practice, but there has been no clinical audit from Irrua.
Aim: The aim of the study is to determine the pattern and outcome of hysterectomy for gynaecological conditions in ISTH, Irrua.
Methods: This is a six year clinical audit of hysterectomy performed in ISTH, Irrua, between 2000-2005. Case files were retrieved from the medical record department and studied. The information on age, educational status, parity, presenting complaints, indications for surgery, types of surgery, duration of hospital stay and complications were retrieved and analysed. Results were presented in tables and simple percentages.
Results: In the six year period, 702 gynaecological operations were performed. Out of these, 85 cases of hysterectomies were done giving an incidence of 12.1%. Over seventy six per cent (76.7%) hysterectomies were done for benign conditions while 23.3% were performed for malignant conditions. Uterine fibroids were the commonest indication for hysterectomy accounting for 46.3% in this study. Majority of the women had total hysterectomy which accounted for 98.7% while 1.3% women had subtotal hysterectomy. The incidence of vaginal hysterectomy was 18.7% and that of abdominal hysterectomy was 82.3% in this study. Vaginal hysterectomy has less complication compare to abdominal hysterectomy. The only complication observed in vaginal hysterectomy was vault haematoma which accounted for 1.3% of all the complications.
Conclusion: In conclusion, the incidence of hysterectomy in ISTH, Irrua is 12.1% and uterine fibroids are the commonest indication for hysterectomy. Though vaginal hysterectomy is associated with less morbidity, abdominal hysterectomy remains the commonest route both for benign and malignant gynaecological conditions.

Introduction

Hysterectomy is the surgical removal of the uterus through an abdominal or vaginal route.[1] It is a very common major surgery in gynaecological practice accounting for 72,000 and 592,000 surgical operations in England and United State of America in 1993 and 1994 respectively.[2, 3] The majority of the procedures are performed for benign gynaecological conditions.

Several authors including Leonardo, Mathieu, Henrotin, Noble and Cianfroni have reviewed the history of hysterectomy.[4] Although, significant advances in the technique of hysterectomy did not occur until the 19th century; earlier attempts are recorded.[4] Vaginal hysterectomy was performed many centuries before abdominal hysterectomy was attempted. Even the midwives handled these earliest hysterectomies done vaginally for uterine prolapse or uterine inversion.[4] The first successful hysterectomy was credited to Charles Clay in 1943, [5] although the two patients suffered postoperative death from haemorrhage. Even after then, hysterectomy continued to be fatal and the mortality was usually due to haemorrhage and infection and surgery was considered unsafe.

Considerable concern has been expressed that the operation is over-used and always done for improper indication.[6] Firie and Morehead 1971 reported that 43% cases of hysterectomies were unjustified.[7] However, now as in the future all patients must be individualised, depending on age, parity, desire for further child bearing and desire to continue menstruation. It is a question of balancing uterine function against pathology.[8]

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In the United Kingdom, by the age of 55 years about 20% of women must have undergone hysterectomy mainly for uterine fibroids and menstrual disorders.[9] However; in the developing countries most women will reject hysterectomy for fear of surgery, loss of feminity and sexual rejection by their spouses. Some prefer to have regular menses for as long as possible while others believe that when they incarnate in future, they will live without uterus or suffer from primary infertility.[10]

Therefore hysterectomy is reluctantly accepted and this only when there is an obvious life threatening pathology, thus making the incidence low in our environment. At UBTH, Benin, 23.3% per year were reported.[11] The incidence at Calabar was 3% of all gynaecological operations.[12] While hysterectomy constitutes only 28% of all major gynaecological operations at the UCH, Ibadan, Nigeria.[13]

The mortality following hysterectomy has reduced significantly through the years with reported rate of 0.06%, [6] however, morbidity continues to plaque women after abdominal or vaginal hysterectomy. The complications that occur include, wound infection, haemorrhage, urinary tract injury and thrombo-embolism.[14] Febrile morbidity is another troublesome complication especially in abdominal hysterectomy.[11, 14] Some reports however have established a significant reduction in post-operative morbidity and hospital stay with the use of prophylactic antibiotics and vaginal approach.[15, 16]

Hysterectomy as a procedure could be total or subtotal. Total hysterectomy could be radical or non-radical. Based on the route of approach it could be vaginal or abdominal hysterectomy. For non-radical hysterectomy, the choice between abdominal or vaginal hysterectomy depends on a variety of factors notably uterine size, pelvic adhesions, uterine/cervical pathology, pelvic floor relaxation, the need to carry out concomitant operations with the procedure and the expertise of the surgeon. In USA 28% of non-radical hysterectomies are performed through the vaginal route,[17] This method is limited mostly to women with genital prolapse in tropical Africa because of the extent and unpredictability of the pelvic adhesions. This may also be due to lack of expertise in vaginal surgery in the absence of uterine prolapse.

Total abdominal hysterectomy has been the standard procedure. The aim is essentially to prevent cervical cancer, however in view of the reduced incidence of cervical cancer in the developed countries due to effective screening programme, the increased risk of ureteric and bladder injuries associated with total hysterectomy and the present climate of increasing medical litigation, subtotal hysterectomy may be preferred under certain conditions.[5]

In the developing countries, the incidence of cervical cancer is high and screening programme is almost non-existent. These suggest that total hysterectomy is to be preferred. The removal of normal ovaries at hysterectomy is controversial. The difficulty associated with screening and treatment of ovarian cancer has fuelled the debate on prophylactic oophorectomy.[18] Most current literatures on hysterectomy and laparoscopically assisted vaginal hysterectomy is associated with fewer complications and faster recovery. Despite this advantage, abdominal hysterectomy is performed three times more commonly than vaginal hysterectomy.[14,19] Another alternative to hysterectomy is endometrial resection and ablation however, lack of facilities and finance have made these alternative unrealistic in developing countries.

The objective of this study therefore is to determine the pattern and outcome of hysterectomy for gynaecological conditions in ISTH, Irrua. Government Area of Kwara State.

Materials and Methods

Over a six year period between 2000-2005 cases of hysterectomy performed at ISTH, Irrua were retrieved from the medical records department and studied. The information on age, educational status, parity, presenting complaints, types of surgery, indications, duration of hospital stay and complications were analysed using tables and simple percentages. The cases included all vaginal and abdominal hysterectomies. Hysterectomies for obstetrics conditions were excluded.

Results

In the six years study 702 gynaecological operations were performed, out of these 85 cases of hysterectomies were performed giving an incidence of 12.1%. However

80 case notes were available for analysis. Out of these, 61(76.3%) were done for malignant conditions.

Table 1: Age distribution of patients in ISTH Irrua who had hysterectomy for gynaecological conditions.

Age in years	Number of patients	Percentage
<30	**1**	**1.3**
31-40	**13**	**16.3**
41-50	**42**	**52.5**
51-60	**12**	**15.0**
61-70	**8**	**10.0**
71-80	**3**	**3.3**
>81	**1**	**1.3**
TOTAL	**80**	**100**

Table 1 shows the age distribution of the patients who had hysterectomy for gynaecological conditions. Majority of the patients were within 41-50 years of age which accounted for 42(52.5%). Only one patient was below 20 years and she had subtotal abdominal hysterectomy for induced septic abortion. She was 17 years of age. Three (3.3%) were above 71 years of age and they had total abdominal (TAH) and bilateral salpingo-oophorectomy (BSO) for endometrial and ovarian cancers.

Table 2: Parity distribution of the patients who had hysterectomy for gynaecological conditions in ISTH, Irrua.

Parity	**Number of patients**	**Percentage**
0	**4**	**5.0**
1	**4**	**5.0**
2	**3**	**3.8**
3	**7**	**8.8**
4	**4**	**5.0**
5	**16**	**20.0**
6	**12**	**15.0**
7	**10**	**12.5**
8	**8**	**10.0**
>9	**12**	**15.0**
Total	**80**	**100**

Table 2 shows parity distribution of patients who had hysterectomy in this study. Majority of the patients were multiparous with 6 children and above accounting for 42(52.5%) while Para five accounted for 16(20,0%). Nulliparous patients were 4(5.0%). One of these was a case of induced septic abortion and another was a case of endometrial cancer in her 6th decades while the remaining two were cases on infertility with symptomatic uterine fibroids that were 43 years and above.

Table 3: Clinical presentations of the patients

Complaints	Number of patients	Percentage
Lower abdominal Mass +_menorrhagia	**37**	**46.3**
Irregular vaginal bleeding	**20**	**25.0**
Mass coming down from the vagina	**16**	**20.0**
Vaginal discharge	**3**	**2.8**
Dyspareunia	**2**	**2.5**
Abdominal pain	**2**	**2.5**
TOTAL	**80**	**100**

Table 3 shows the presenting complaints of the patients. Lower abdominal mass with associated menorrhagia accounted for 37(46.3%) while mass protruding from the vagina (uterovaginal prolapse) accounted for 16(20.o %). However, fewer patients presented with abdominal pain which accounted for 2(2.5%).

Table 4: Indications for hysterectomy

Indications	**Number of patients**		**Percentage**
	Abdominal	**Vaginal**	
Uterine fibroids +_menorrhagia	**36**	**1**	**37(46.3%)**
Uterovaginal prolapsed	**1**	**14**	**1(18.8%)**
Cervical cancer	**7**	**-**	**7(8.8%)**
Ovarian cancer	**5**	**-**	**5(6.3%)**
Chronic cervicitis	**3**	**-**	**3(3.8%)**
Adenomyosis	**3**	**-**	**3(3.8%)**
Cervical polyps	**2**	**-**	**2(2.5%)**
Septic abortion	**1**	**-**	**1(1.3%)**
Choriocarcinoma	**1**	**-**	**1(1.3%)**
TOTAL	**65**	**15**	**80(100%)**

Table 4 shows the indications for the hysterectomy in the study. Uterine fibroids with or without menorrhagia accounted for 37(46.3%) and the commonest indication for the hysterectomy in this study. Septic abortion and choriocarcinoma with intractable vaginal bleeding accounted for 1(1.3%) each.

Table 5: Types of hysterectomy

Surgery	Number of patients			
	Abdominal	**Vaginal**	**Total**	**Percentage**
Total hysterectomy	**42**	**15**	**57**	**67.5%**
Total hysterectomy & BSO	**22**	**-**	**22**	**31.3%**
Subtotal hysterectomy	**1**	**-**	**1**	**1.3%**
TOTAL	**65**	**15**	**80**	**100%**

BSO = Bilateral Salpingo-oophorectomy

Table 5 shows type of surgery performed in this study. Total hysterectomy alone accounted for the majority of surgery in 57(67.5%). Total abdominal hysterectomy and bilateral salpingo-oophorectomy (BSO) were done in 22(31.3%) and 1 (1.3%) patient had subtotal hysterectomy for induced septic abortion with gangrenous uterus. All patients that had TAH and BSO were 40 years of age and above.

In this study 65(81.3%) had abdominal hysterectomy while vaginal hysterectomy accounted for 15(18.7%). Vaginal hysterectomy was mainly performed for utero-vaginal prolapsed

Table 6: Duration of hospital stay.

Duration (days)	Number of patients			
	Abdominal	**Vaginal**	**Total**	**Percentage**
1-5	**3**	**10**	**13**	**16.3%**
6-10	**44**	**5**	**49**	**61.3%**
11-15	**8**	**-**	**8**	**10.0%**
>_16	**10**	**-**	**10**	**12.5%**
TOTAL	**65**	**15**	**8O**	**100%**

Table 6 shows the duration of hospital stay. Within the first 10 post-operative day 62(77.6%) were discharge home. Majority of the patients that had vaginal hysterectomy were discharge home within the first five post-operative day and it accounted for 10(12.5%). Ten (12.5%) of the patients had cause to stay more than 16th post-operative day, and this was due to wound infection.

The median intra-operative blood loss for vaginal hysterectomy was 300ml with the range of 200-600ml and the median intra-operative blood loss for abdominal hysterectomy was 500ml with the range of 200 -3500ml.

Table 7: Complications of the hysterectomy

Complications	**Number of patients (n=15)**			
	Abdominal	**Vaginal**	**Total**	**Percentage**
Wound sepsis	**6**	**-**	**6**	**7.5%**
Anaemia	**4**	**-**	**4**	**5.0%**
Pyrexia	**2**	**-**	**2**	**2.5%**
Vault haematoma	**-**	**1**	**1**	**1.3%**
Vesico-vaginal fistula	**1**	**-**	**1**	**1.3%**
Death	**1**	**-**	**1**	**1.3%**

Table 7 shows the complications of the hysterectomy done over the period. Wound sepsis accounted for 6 (7.5%) of the total complications in this study. Vault haematoma accounted for 1 (1.3%), which was the only complication of vaginal hysterectomy in this study. There was one case of intraoperative death which was due to anaesthetic accident. Majority of the patients in this study did not have any complication from the surgery which accounted for 65(81.3%).

Discussion

During the study period 702 gynaecological operations were performed, out of these 85 patients had hysterectomy making the incidence to be 12.1%. However, 80 case notes were available for analysis. Majority of the hysterectomies (76.3%) were performed for benign gynaecological conditions while malignant gynaecological conditions accounted for 23.7% of the cases.

The age distribution in this study ranged between 17-80 years. Majority of the patients were in their fourth decade and above. This accounted for 81% and is similar to the findings in other studies.[11, 13]

Majority of the patients in this study were of high parity with Para five and above accounting for 72.5%. This may be due to rejection of hysterectomy by women of low parity. More so, most women reject hysterectomy for fear of surgery, loss of feminity, and sexual rejection by their spouses. Thus hysterectomy is accepted only when there is an obvious life threatening pathology in the uterus.[10]

The clinical presentation of patients that eventually had hysterectomy in this study for either benign or malignant gynaecological conditions varies. Abdominal mass suspected to be uterine fibroid with or without heavy menstrual bleeding was the commonest complaints which accounted for 46.3%. Fibroid is associated with menorrhagia though the aetiology is not clear. However, it has been speculated that increased surface area, hyperplasia of the uterus and interstitial fibroid nodules prevent myometrial contractions.

Uterine fibroids with or without menorrhagia was the commonest indication for the hysterectomy as it accounted for 46.3% in this study. This is likely due to the fact that uterine fibroids is common among blacks and is present in about 20% of women over the age of 35 years.[20] The diagnosis of uterine fibroids is mainly clinical. Ultrasound scan may aid in assessing the number, site, type, and any other associated pelvic organ pathology. The diagnosis of utero-vaginal prolapse is based on the history and clinical findings at presentation.

Cervical cancer was the commonest malignant gynaecological indication for the hysterectomy, which accounted for 8.8%. Endometriosis is not common among blacks, hence no case was found in this study. This finding agrees with other studies.[12, 20]

Almost all women had a total hysterectomy which accounted for 98.7% while 1.3% had subtotal hysterectomy. This agrees with the incidence of subtotal hysterectomy of 1.4% reflected in the report of hospital episode statistics in Britain.[5] The reason for the removal of the cervix was to prevent carcinoma of the cervical stump. However, the incidence of cervical cancer is reduced in developed countries due to effective screening method. In the developing countries the incidence of cervical cancer is high and screening programmes are almost non-existent. This suggests that total hysterectomy is to be preferred.

Total hysterectomy and salpingo-oophorectotmy were done for 31.3% of the patients in this study. Most of these patients were aged 40 years and above. Hormonal replacement therapy is recommended for women below 45 years to prevent post-menopausal symptoms. However, this is not a routine practice in our centre as majority of the women effectively tolerate the symptoms.

The incidence of vaginal hysterectomy is 18.7% as against 81.3% performed abdominally in this study. This is slightly lower than the general incidence of 25-30% of hysterectomy performed vaginally as reported by John D. and Thompson.[4] This is likely due to lack of skill for vaginal hysterectomy among young trained gynaecologist. Also, larger fibroid are seen here which may be difficult to remove vaginally. However, vaginal hysterectomy has a lot of advantages over abdominal hysterectomy. These advantages include less morbidity such as wound infection, short duration of hospital stay and fewer post-operative adhesions compared to abdominal hysterectomy.[4] This is reflected in table 6 and 7 in this study. More so blood loss in vaginal hysterectomy is less compared to abdominal hysterectomy.

Complications following hysterectomy are numerous. In this study however 18.8% of the patients developed complications of which wound sepsis was the commonest and accounted for 7.5% of all complications. Low socio-economic status, poor nutrition and lack of fund to procure antibiotics might have contributed to the high wound infection rate observed in this study. There was one case of bladder injury, which resulted in vesico-vagina fistula accounting for 1.3%. This is higher than 0.1% reported by Evans in 1979. Post-operative pyrexia occurred in 2.5% of the patients, which was less than that reported by Okpere and Ezem et al as 24.4% and 29.4% respectively.[11, 12] This is likely due to improper records of vital signs as observed in this study.

It was observed in this study that abdominal hysterectomy is associated with more complications than vaginal hysterectomy. The only complication observed in vaginal hysterectomy was vault haematoma, which accounted for 1.3% of all the complications. This agrees with the report by John D. and Thompson.[4] Psychological depression is well-recognised post hysterectomy complication, however, none of the women in this study reported depression perhaps the clinician did not search for this. Most of the patients in this study had general anaesthesia. Epidural is a useful alternative to general anaesthesia and is to be preferred in selected cases.

Conclusion

The study has shown that the incidence of hysterectomy in ISTH, Irrua is 12.1% and uterine fibroids are the

commonest indication for hysterectomy in 46.3% of patients. Though vaginal hysterectomy is associated with less morbidity, abdominal hysterectomy remains the commonest route both for benign and malignant gynaecological conditions. Skill acquisition and development in vaginal hysterectomy need to be pursued with all interest because of its well reported low morbidity which was also observed in this study.

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