Hysterectomy for Benign Gynaecological conditions at Gombe, North Eastern Nigeria

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SUMMARY

Background: Hysterectomy is one of the commonest major gynaecological surgeries performed all over the world. This study is the first audit of hysterectomy in a relatively new centre in the North-eastern part of Nigeria.

Aim: To determine the indications and outcome of hysterectomy in Gombe

Methods: This is a retrospective study in a tertiary health facility in Gombe, an urban community in north eastern Nigeria. The study is a descriptive analysis of all cases of hysterectomy for benign disease over a 6year period (January 2001-December 2006). Information on socio-demographic characteristics, presenting symptoms, indication for surgery, type of hysterectomy, cadre of surgeon, operative findings, blood transfusion, pre-morbid condition, duration of hospital stay and post-operative morbidity were retrieved and analyzed.

Results: Hysterectomy for benign gynaecological conditions accounted for 10.7% of all major gynaecological operations during the study period. The leading indications for hysterectomy were uterine fibroid 36(39.1%), dysfunctional uterine bleeding (DUB) 21(22.8%), and uterovaginal prolapse 19 (20.7%).The mean age and parity were 45.7$\pm$11.1years and 5.5$\pm$3.7 respectively. Abdominal hysterectomy with either unilateral or bilateral salpingo-oophorectomy accounted for 73(79.3%) and vaginal hysterectomy contributed 19(20.7%) of cases. The majority of the patients 55(59.8%) were not transfused. Thirty four (37%) were found to be hypertensive. The crude morbidity rate was 29 (31.5%) with wound infection 7(24.1%) being the commonest complication. There was no mortality associated with hysterectomy during the period under review. There was no significant difference in blood transfusion rate between abdominal and vaginal hysterectomies (P= 0.168).The cadre of surgeon (consultant or senior registrar) had no significant influence on morbidity rate (P= 0.132) and overall there was no significant difference between route of hysterectomy (abdominal or vaginal) and morbidity rate (P =0.577).The duration of hospital stay was however significantly lower in those who had vaginal hysterectomy (P=0.019)

Conclusion: Hysterectomy appears to be a safe procedure but the high morbidity rate is worrisome. There might therefore be the need to review antibiotic prophylaxis and the policy of asepsis and antisepsis during hysterectomies. The shorter duration of hospital stay following vaginal hysterectomy has an economic appeal and therefore should be resorted to whenever feasible.

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Key words: **Indication, hysterectomy, outcome, Gombe**

INTRODUCTION

Hysterectomy is one of the most common major operations performed in Gynaecology. [1,2,3,4] In the United States over one third of women have undergone a hysterectomy by the age of 60.[5] Early hysterectomies were associated with high morbidity and mortality mainly from haemorrhage and infection. Improvement in blood banking services, use of potent antibiotics and safe anaesthetic techniques have dramatically reduced the morbidity and mortality associated with hysterectomy. [6]Traditionally, hysterectomy is performed through laparotomy but of recent laparoscopic assisted vaginal hysterectomy is gaining grounds in the developed economies[7]. Minimally invasive procedures like endometrial resection and ablation are increasingly becoming viable alternatives to hysterectomy especially in cases of dysfunctional uterine bleeding without huge fibroids.[8]Minimally invasive procedures though not commonly performed, are likely to be more acceptable alternative to hysterectomy especially with the morbid aversion to the latter in our environment.[9] This option however will be useful only when women present early with small uterine fibroids.

Being a new centre with no data on hysterectomy, it is the desirable to document the indications and outcome of hysterectomy in our centre and compare with other reports around the globe.

METHODS

This is a six year retrospective review of all cases of hysterectomy between January 2001 and December 2006 at the Federal Medical Centre Gombe. There were 126 cases of hysterectomy for benign gynaecological conditions during the study period; 97 case folders were retrieved but only 92 had adequate information for analysis. The case records were obtained from the medical records department, the theatre and ward registrars. The records were analyzed with regard to some

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socio-demographic characteristics, indication for surgery, type of hysterectomy, cadre of surgeon, operative findings, blood transfusion, pre-morbid condition, duration of hospital stay and post-operative morbidity. A temperature greater than 38^0c on two occasions was considered as fever while local erythema or suppuration was considered as wound infection. Data were analyzed using EPI.INFO version 3.4.3. Chi-square statistical analysis was used where appropriate. A P value <0.05 was accepted as significant.

RESULTS

During the study period there were 1181 major gynaecological operations performed out of which 126 were hysterectomies for benign gynaecological conditions giving a prevalence of hysterectomy of 10.7%.The socio-demographic characteristic as shown in Table I revealed that the majority of women were in their 4th to 6th decades of life. The mean age was 45.7±11.1 with a range of 30 to 85years.Most women 86(93.5%) were married, 3(3.3%) each were single and widowed. The majority 54(58.7%) were grandmultiparae while 8(8.7%) were nulligravidae. The mean parity was 5.5±3.7 with a range of 0-15.

The indications for and types of hysterectomy are depicted in Table 2. The leading indications for hysterectomy were uterine fibroid with or without menorrhagia, 36(39.1%), DUB 21(22.8%) and vaginal prolapse, 19(20.7%) and. Most women had abdominal hysterectomy, 73(79.3%), while 19(20.7%) had vaginal hysterectomy. Among those who had abdominal hysterectomy, 4(5.5%) were subtotal while 69(94.5%) were total abdominal hysterectomies. All except one of those who had subtotal hysterectomy had previous myomectomy.

Consultants performed 74(80.4%) of all the hysterectomies while senior registrars performed 18(19.6%).All the vaginal hysterectomies were performed by consultants. The cadre of surgeon had no influence on morbidity rate (P=0.132).The majority of the patients, 55(59.8%) were not transfused. The route of hysterectomy did not influence transfusion (P=0.168).Overall, there was no difference in morbidity rate between those who had abdominal compared with those who had vaginal hysterectomy (P=0.577).The duration of hospital stay ranged from 5 -28days with a mean of 6 and 9 days for vaginal and abdominal hysterectomies respectively. The duration of hospital stay was significantly shorter in those who had vaginal hysterectomy (P=0.020). The uterine size was clinically adjudged to be normal in 40(43.4%), while in 42(45.7%) the uterine size was greater than 12weeks gestational size. Hypertension was the commonest premorbid condition diagnosed in 34(37%) as shown on Table 3. The operative findings revealed normal anatomy in 36(39.0%), uterine fibroids in 32(35%), uterine fibroid with adhesion in 14(15.2%) and uterine fibroid with ovarian cyst in 4 (4.3%). The morbidity rate was 29(31.5%), with wound infection 7(24.1%) being the leading complication, closely followed by fever 6(20.7%). The route of hysterectomy had no influence on the overall morbidity rate but urinary tract infection (P=0.041) and vaginal discharge (0.027) were significantly associated with vaginal than abdominal hysterectomy.

Table 1: Some socio-demographic characteristics of women who had hysterectomy

Characteristic	Number	Percentage
Age (years)		
30-39	20	21.7
40-49	37	40.2
50-59	24	26.1
60-69	7	7.6
>70	4	4.4
Total	**92**	**100**
	Mean age 45.7+11.1	
Marital status		
Married	86	93.4
Single	3	3.3
Widow	3	3.3
Total	**92**	**100**
Parity		
0	8	8.7
1-4	30	32.6
5-9	36	39.1
10-15	18	19.6
Total	**92**	**100**
	Mean parity 5.5±3.7	

Table 2: Indication and type of hysterectomy

Characteristics	Number	Percentage
Indication		
Uterine fibroid+ Menorrhagia	36	39.1
Dysfunctional uterine bleeding	21	22.8
Utero-vaginal prolapse	19	20.7
Cervical intraepithelial Neoplasia	10	10.9
Chronic pelvic pain	5	5.4
Adenomyosis	1	1.0
Total	**92**	**100**
Type of hysterectomy		
STH	3	3.3
STH+USO	1	1.1
TAH	13	14.1
TAH+BSO	29	31.5
TAH +USO	27	29.3
VAH	19	20.7
Total	**92**	**100**

Table 3: Distribution of uterine size, pre-morbid condition and Operative findings

Characteristic	Number	Percentage
Uterine size (weeks)		
Normal	40	43.4
<12	10	10.9
12-24	39	42.4
>24	3	3.3
Total	**92**	**00**
Pre-morbid condition		
Hypertension	34	37
Hypertension with diabetics	5	5.4
Diabetic only	3	3.3
Acid peptic disease	1	1.1
Normal	49	53.2
Total	**92**	**100**
Operative findings		
Normal	36	39.0
Fibroid	32	35.0
Fibroid+ adhesion	14	15.2
Fibroid + ovarian cyst	4	4.3
Ovarian cyst	6	6.5
Total	**92**	**100**

DISCUSSION

In keeping with earlier reports, most patients undergoing hysterectomy in this study were in their 4th to 6th decades of life.[9,10,11] The fact that majority of our patients were married reflects the socio-cultural background of the population studied. The leading indication for hysterectomy in this study is uterine fibroids. This is in agreement with other findings.[10,11,12,13] Expectedly the majority, 74(80.4%) who had hysterectomy were multiparous as the nulliparous would rather prefer myomectomy.[14] Only 8(8.7%) of those who had hysterectomy were nulligravidae. This is higher than the report from Ibadan[11] but lower than that from Maiduguri.[10]The low number among the nulligravidae reflects the desire for future childbearing even in the face of incontrovertible facts precluding pregnancy. This is in contrast with the Maiduguri[10] study where 20% of those who had hysterectomy were nulliparous. The association of uterine fibroid with adhesions documented elsewhere[9,15] was also seen in 14(15.2%) in this study. This finding may suggest an association between fibroids and pelvic inflammatory disease. Similar assertion were made by some authors[16, 17] but disputed by others.[18,19] Many of our patient 43(46.7%) had other medical conditions with hypertension being the commonest. This finding is in contrast with that of Vessey et al. [20] who found many of his patient without major extra uterine disease.

Total abdominal hysterectomy accounted for 69(75%) of hysterectomies in this study. This is comparable to 82.7% and 85.33% reported from some series[12, 21] The vaginal hysterectomy rate of 19 (20.7%) is higher than the 10.6%, 10.7%, 14.67% reported[10,12, 21] The wide disparity between abdominal and vaginal hysterectomy may be because most of our patients 42(45.7%) presented with utrerine size greater than 12weeks. In addition many gynaecologists are not proficient with vaginal hysterectomy[22]. The fact that the indication for all the vaginal hysterectomies were utero-vaginal prolapse and that all the vaginal hysterectomies were performed by consultants suggest an unmet need for pelvic surgeries in our environment. Large uterine size, nulliparity, previous caesarean section and pelvic laparotomy which hitherto were contraindications to vaginal hysterectomy now rarely constitute contraindications to vaginal hysterectomy. [23] Although vaginal hysterectomy has been shown to be associated with less morbidity than abdominal hysterectomy[10, 24 ,25] such was not found in this study. In contrast urinary tract infection and vaginal discharge were commoner in those who had vaginal hysterectomy. These may be because of longer duration of catheterization and excessive granulation tissue formation respectively in those who had vaginal hysterectomy. In consonance with other studies[10,24,25] the duration of hospital stay was shorter among those who had vaginal hysterectomy in our series. This has an economic appeal and therefore should be performed more readily whenever feasible. Subtotal hysterectomy was performed in 4(4.4%). This is higher than 1.1% but comparable to 5.8% from earlier studies.[10, 12] All except one of the subtotal hysterectomies were performed in those who had previous myomectomy.

The mean duration of hospital stay was 8.3days with a range of 5-28days.This is similar to 8.5 reported by Sagay et al [26] but lower than the 11.2days reported by Kawuwa et al[10] The crude morbidity rate of 31.5% found in this study is lower than 14%[2] and 24.21%[21] but comparable to 32.6%[27] and 31%[11] earlier reported. Wound infection and febrile morbidity were the leading complications in our study. This is similar to other reports.[9,11, 28] The cadre of surgeon did not significantly influence the morbidity in our study. The route of surgery also had no influence on need for transfusion. Similar finding has been reported.[10] There was no mortality recorded in our series. This agrees with some previous studies [10,11] but contrast with others.[2, 21]

Abdominal hysterectomy was the most common procedure performed. The route of hysterectomy had no influence on morbidity but the duration of hospital stay is shorter with vaginal hysterectomy. The study has shown that hysterectomy is a safe procedure but the high morbidity associated with the procedure is bothersome. The use of Peri-operative antibiotic prophylaxis rather than post-operative prophylaxis may reduce the infectious morbidity associated with hysterectomy. Study of sensitivity pattern with appropriate choice of antibiotics for prophylaxis will help reduce the infectious morbidity associated with hysterectomy in Gombe.

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