

Full Length Research Paper

Hysterectomy for benign gynaecological conditions at a Tertiary Hospital, South-south, Nigeria

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Received 27 May, 2016; Accepted 03 July, 2016; Publish August 06, 2016

Objectives: To determine the indications, type and outcome of hysterectomy performed for benign gynaecological conditions over a 5-year period. **Materials and Methods:** A retrospective study of 152 women who had hysterectomy for benign conditions at the gynaecology unit of the University of Port Harcourt Teaching Hospital, (UPTH) Nigeria, between January 1, 2011 and December 31, 2015 was conducted. Data was obtained from the theatre records and case notes of patients and entered into a proforma. This was analysed using the statistical package SPSS 20. **Results:** Hysterectomy for benign gynaecological conditions accounted for 15.4% of all major gynaecological operations. The leading indication for hysterectomy was uterine fibroid 75 (49.3%). The mean age and parity were 49.9 ± 11.3 years and 4.2 ± 2.4 respectively. Abdominal hysterectomy with either unilateral or bilateral salpingo-oophorectomy accounted for 105 (69.1%). Majority of the patients 104 (68.4%) were transfused and the mean number of blood units transfused was 2.08 ± 1.24 . The crude morbidity rate was 22 (14.5%) with anaemia occurring in 15 (68.2%) of the women. There was one death from hypovolaemic shock during this period. Total abdominal hysterectomy had a statistically significant higher rate of blood transfusion ($P= 0.03$). **Conclusion:** Hysterectomy for benign gynaecological conditions is a relatively common and safe procedure. The trend in the indications and pattern of morbidity has remained largely unchanged.

Keywords: Hysterectomy, benign conditions, indications, south-south, outcome.

INTRODUCTION

Hysterectomy, which is the surgical removal of the uterus and cervix, is the most common major gynaecological surgery done in our environment and in sub-Saharan Africa (Stefanie and Donald, 2002). It is associated with a lot of psychosocial beliefs, especially in Africa where women often reject the procedure for fear of surgery, loss of femininity, and sexual rejection by their spouses, or because of their strong cultural and religious beliefs on preservation of menstruation and childbearing (Arowojolu, 2003; Omigbodun and Ayinde, 2003). Early hysterectomies were associated with high morbidity and mortality mainly from haemorrhage and infection.

However, improvement in blood banking services, use of potent antibiotics and safe anaesthetic techniques have dramatically reduced the morbidity and mortality associated with hysterectomy (Bachmann, 1990). 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. 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 Nigeria (Ezem and Otubu, 1981).

The prevalence of hysterectomy for benign conditions ranges from 9.2% to 16.4% in Nigeria (Awoleke, 2012; Omokanye et al, 2012; Bukar et al, 2010; Obilahi et al, 2013). These rates have remained relatively stable in spite

of a large number of potential alternatives to hysterectomy for the management of benign diseases. This is in contrast to the United States where about 600,000 hysterectomies are performed annually, and a third of women will have a hysterectomy during their life time and before menopause. (Arowojolu, 2003; Moorman et al, 2009).

The commonest indications for hysterectomy in our environment still remain uterine fibroid and menstrual disorders as in the developed countries. The other indications include dysfunctional uterine bleeding, endometriosis and pelvic organ prolapse (Moorman et al, 2009). Majority of women have relief from their symptoms after hysterectomy with associated high level of satisfaction with the procedure. However, the procedure is not without its complications, including the long term risk of having twice the rates of operations for stress incontinence and prolapse irrespective of the technique or type of hysterectomy. Furthermore, some researchers have reported weight gain as a complication of hysterectomy (Moorman et al, 2009; Altman et al, 2008; Carlson et al, 1994).

There is paucity of data on hysterectomy for benign gynaecological conditions in our environment. A baseline data on the local population will ascertain the indications, clinical characteristics and the pattern of morbidity associated with elective hysterectomies which are the aims of this study.

MATERIALS AND METHODS

Study site

This study was carried out at the gynaecology unit of the University of Port Harcourt Teaching Hospital. It is an 800-bed hospital located in Rivers state South-South Nigeria, fifteen kilometers from Port Harcourt city along the East-West road. It is a tertiary health institution that provides all levels of care. The Obstetrics and Gynaecology department is one of the major clinical departments of the hospital. The gynaecology unit has 40 beds in the general ward and three beds in the private/semi-private rooms. There are five units, each unit has four consultant obstetricians/gynaecologists, five specialist senior registrars and two registrars with many experienced nurses. The gynaecology clinic is run by each unit from Monday to Friday every week. Patients are evaluated in the clinic before they are admitted into the gynaecological ward for surgery.

Methods

This was a retrospective study of all cases of hysterectomy performed for benign diseases at the University of Port Harcourt Teaching Hospital (UPTH), Port Harcourt over a 5 year period (January 1, 2011 – December 31, 2015). The variables to be analysed were

retrieved from the theatre records, ward registers and case notes over the period under review and entered into a proforma designed for this purpose. These variables included socio-demographic characteristics, presenting symptoms, indication for surgery, type of hysterectomy, cadre of surgeon, intra-operative blood loss, blood transfusion, pre-morbid condition, duration of hospital stay after surgery and post-operative morbidity. The proforma for each patient was checked for completion before it was entered into a spreadsheet and analysed.

Statistical analysis

The Statistical package SPSS 20 was used for data analysis. The results are represented in simple percentages and tables. P-values <0.05 were considered statistically significant.

RESULTS

During the period under review, a total of 988 major gynaecological surgeries were performed. Of these, 152 hysterectomies were done for benign gynaecological conditions giving a prevalence of 15.4%. Table 1 showed that hysterectomy was accepted more by married women, who were aged between 40-49 years and who had at least 4 children. The mean age and parity were 49.9 ± 11.3 years and 4.2 ± 2.4 respectively. From table 2, it could be seen that the commonest indications for hysterectomy were uterine fibroids with or without menorrhagia 75 (49.3%) and utero-vaginal prolapse 47 (30.9%). Total abdominal hysterectomy with ovarian conservation (34.9%) was the commonest type of procedure followed by hysterectomy with bilateral salpingo-oophorectomy (34.2%) and vaginal hysterectomy (30.9%) (table 3).

Consultants performed 141(92.8%) of the hysterectomies and senior registrars performed 11(7.2%) while all vaginal hysterectomies were performed by consultants. The majority of the patients, 104 (68.4%) had blood transfusion and the mean number of units transfused was 2.08 ± 1.24 . The route of hysterectomy significantly influenced the rate of blood loss and blood transfusion ($P=0.001$ and 0.03 respectively), with total abdominal hysterectomy having a significantly higher rate of blood transfusion. These are shown in tables 4 and 5.

The crude morbidity rate in this study was 22 (14.5%), with anaemia 15(68.2%) being the commonest complication. One woman who had vaginal hysterectomy for utero-vaginal prolapse died from haemorrhage during the period under review. Overall, there was no significant difference in the morbidity rate between abdominal hysterectomy and vaginal hysterectomy (Table 6).

Also, there was no significant difference in the duration of hospital stay in relation to the type of hysterectomy with an average duration of 6.67 ± 3.24 days. This is shown in

Table 1. Socio-demographic characteristics.

Variable	Frequency	Percentage
Age		
30-39	26	17.1
40-49	59	38.8
50-59	25	16.5
60-69	33	21.7
70-79	9	5.9
Parity		
0	10	6.6
1-4	84	55.3
5-8	49	32.2
>8	9	5.9
Marital status		
Married	136	89.5
Widowed	8	5.3
Separated	4	2.6
Divorced	4	2.6
Total	152	100

Table 2. Indications for hysterectomy.

Variables	Frequency	Percentage (%)
Uterine fibroids	75	49.3
Utero-vaginal prolapse	47	30.9
Cervical dysplasia	13	8.6
Adenomyosis	7	4.6
Dysfunctional uterine bleeding	5	3.3
Endometrial hyperplasia	5	3.3
Total	152	100

Table 3. Types of Hysterectomy.

Variables	Frequency	Percentage (%)
TAH	53	34.9
TAH + BSO	52	34.2
Vaginal hysterectomy	47	30.9
Total	152	100

*TAH= Total abdominal hysterectomy *TAH+BSO=Total abdominal hysterectomy and bilateral salpingo-oophorectomy.

in table 7.

DISCUSSION

Hysterectomy continues to be relevant in gynaecological practice in our environment in spite of the strong aversion by our women. (Arowojolu, 2003; Omigbodun and Ayinde, 2003). This study showed a higher prevalence for hysterectomy done for benign gynaecological conditions than was reported in earlier studies in Nigeria (Bukar et al, 2010; Geidam et al, 2010; Abe and Omo-Aghoja,

2008). However, a similar rate for the procedure was reported in Okolobiri (Obilahi et al, 2013). Differences in cultural and religious beliefs, and attitude to hysterectomy may be responsible for the disparities in the rates of hysterectomy reported.

From the data presented, the operation was commonly performed on women aged 40-49 years. This is similar to reports from other studies in Nigeria. (Awoleke, 2012; Omokanye et al, 2012; Bukar et al, 2010; Abe and Omo-Aghoja, 2008; Obilahi et al, 2013). This finding corroborated the report from Saudi Arabia where the average age is in the early forties and between 20-25% of

Table 4. Blood loss in relation to the type of hysterectomy.

Types of hysterectomy	Blood loss			Total	Chi-square (χ ²)	df	p-value
	<500	500-1000	>1000				
TAG + BSO	9 (23.68)	33 (37.50)	10 (38.46)	52 (34.21)	35.29	4	0.001*
TAH	3 (7.89)	39 (44.32)	11 (42.31)	53 (34.87)			
VAGHYS	26 (68.42)	16 (18.18)	5 (19.23)	47 (30.92)			
Total	38	88	26	152			

*TAH had a statistically significantly higher blood loss, >1000, 11 (42.31%) followed by TAH+BSO, 10 (38.46) and then VAGHYs, 5 (19.23) which is the least.

Table 5. Blood transfusion in relation to hysterectomy.

Types of hysterectomy	Blood transfusion		Total	Chi-square (χ ²)	Df	p-value
	Yes	No				
TAG + BSO	17 (34.69)	35 (33.98)	52 (34.21)	6.71	2	0.03*
TAH	23 (46.94)	30 (29.13)	53 (34.87)			
VAGHYS	9 (18.37)	38 (36.89)	47 (30.92)			
Total	49	103	152			

*TAH had a statistically significantly higher blood transfusion, 23 (46.94%) followed by TAH+BSO, 17 (34.69) and then VAGHYs, 9 (18.37) which is the least.

Table 6. Post operative morbidity in relation to the type of hysterectomy.

TYPE OF HYSTERECTOMY	Post operative complications								Total
TYPE OF HYSTERECTOMY	ANAEMIA	DVT/CCF	HAEMATURIA	HAEMORRHAGE	PYREXIA	URINARY RETENTION	WOUND SEPSIS	WOUNDSEPSIS	Total
TAG+BSO	4 (26.67)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (100.0)	0 (0.0)	6 (27.2)
TAH	7 (46.67)	0 (0.0)	0 (0.0)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)	1 (100.0)	9 (40.9)
VAGHYS	4 (26.67)	1 (100.0)	0 (0.0)	1 (100.0)	0 (0.0)	1 (100.0)	0 (0.0)	0 (0.0)	7 (31.82)
TOTAL	15	1	1	1	1	1	1	1	22
Chi-square (χ²)	15.22								
Df	14								
p-value	0.363								

women would have had a hysterectomy by the time they reach their mid-fifties (Sobande et al, 2005). As was also reported in a study from Karachi, most of the patients were multiparae having had at least 4 children (Iftikhar, 2008). These findings noted that women who accepted hysterectomy procedure tended to increase with age and had a strong correlation with parity. This is logical considering the fact that most patients would likely consent to hysterectomy only after completing their families.

Studies have shown that majority of hysterectomy procedures are performed for benign diseases. The commonest indication for hysterectomy in this study was

uterine fibroids, with or without menorrhagia. This is similar to results obtained from other centers (Awoleke, 2012; Obiechina et al, 2011; Omokanye, 2012; Obilahi et al, 2013). This may be because the surgery was done to correct problems that interfered with normal functions and to improve the quality of life.

The commonest type was abdominal hysterectomy, with vaginal hysterectomy being performed for all cases of utero-vaginal prolapse. This may be due to the traditional teaching that favours the abdominal route for uterine size more than 12-14 weeks (Unger et al, 2002). Also, it may be because most of our patients presented with uterine size greater than 12weeks. In addition, many gynaecolo-

Table 7. Duration of hospital stay in relation to types of hysterectomy.

Types of hysterectomy	Duration of hospital stay		ANOVA	<i>p-value</i>
	Mean	SD		
TAG + BSO	7.09	2.04	1.00	0.369
TAH	6.21	1.28		
VAGHYS	6.74	5.25		

gists are not proficient with vaginal hysterectomy. 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.

The dilemma as to whether to remove or conserve the ovaries at the time of hysterectomy has been debated for decades. In the absence of a diseased ovary, current thinking is to recommend oophorectomy in women over the age of 45 years and encourage it in women who are post-menopausal. This is because of the risk of residual ovary syndrome and cancer of the ovary in patients with conserved ovaries. However, the decision should be individualized, with consideration given to the patient's menopausal status, the risk of ovarian cancer, and the ability to take oestrogen replacement therapy.

Findings by earlier workers showed that for benign conditions, vaginal hysterectomy had the benefits of speedier return to normal activities, fewer febrile episodes and shorter duration of hospital stay when compared with the abdominal route. They concluded that because of the equal or significantly better outcomes on all parameters, vaginal hysterectomy should be performed in preference to the abdominal route where possible (Nieboer et al, 2009). Similar results were obtained in this study which showed a higher incidence of post-operative morbidities in women that had abdominal hysterectomy as opposed to those that had vaginal hysterectomy, this is also similar to findings from other studies. (Bukar et al, 2010; Oyawoye, 1998; Kawuwa et al, 2007). However, the route of surgery had no influence on the duration of hospital stay, this may be due to the use of absorbable sutures in closing the abdominal incisions.

The mean duration of hospital stay was 6.7days with a range of 5-17days. This is lower than that reported in other studies (Sagay et al, 1997; Kawuwa et al, 2007). This may be due to differences in patient's condition prior to surgery, surgical techniques, type of sutures, choice of prophylactic antibiotics and the post-operative morbidities.

Anaemia was the commonest post-operative morbidity seen in patients that had abdominal hysterectomy. The need for blood transfusion had a correlation with the route of surgery, with abdominal hysterectomy having a higher rate of blood loss and transfusion. This is at variance with results from previous studies (Bukar et al, 2010; Kawuwa et al, 2007).

CONCLUSION

Alternative conservative measures such as endometrial ablative techniques or use of medical treatment are not readily available in our environment or when available are expensive. Hysterectomy is a relatively safe procedure, however, there is need for further training and re-training of gynaecologist in the art of vaginal hysterectomy in order to optimize the reproductive health outcomes especially for women who present early.

This study has some limitations since it was a retrospective and hospital-based study. The patients were not followed up for long term effects especially the psychological effects as stated in the literatures. There is need for a prospective study to identify the long term effects of hysterectomy in these women. The strengths of the study lies on its clinical relevance, simple analysis and interpretation of the results obtained.

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