An Audit of Vaginal Hysterectomies in Enugu, Nigeria

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Abstract

Background: There is scanty data on vaginal hysterectomy in Nigeria

Objective: To determine the rate, indications and complications of vaginal hysterectomy as seen in a Nigerian tertiary care centre.

Methods: A retrospective review of vaginal hysterectomies performed at the University of Nigeria Teaching Hospital, Enugu, Nigeria, over a six year period (1995-2000).

Results: There were 13 vaginal hysterectomies per 1000 gynaecological operations. Genital prolapse was the only indication for the 84 vaginal hysterectomies performed during the study period. Moderate to severe intrapelvic adhesions were found in 4 (4.8%) of the patients. The uterine size was less than 12 weeks gestation size in all the 84(100%) cases. Incidental operations were anterior colporrhaphy in all the 84 (100%) cases and posterior colporrhaphy in 25 (29.8%) of the subjects. Bilateral oophorectomy was done in 5 (6.0%) and unilateral oophorectomy in 3 (3.6%) of the women. Complications were recorded in 15 women, giving a complication rate of 17.9%. Urinary tract infection was the commonest complication.

Conclusion: Vaginal hysterectomy rate in Enugu, Nigeria is lower and the indications for the operation more limited than in the United States of America and Western Europe.

Key words: Vaginal hysterectomy, rate, indications, complications, Enugu, Nigeria

Introduction

Hysterectomy is a frequently performed major gynaecological operation. National and institutional data concerning the operation are mainly from the developed countries[1,2]. To the best of the authors' knowledge, no national data for hysterectomy are available for Nigeria. Institutional data are also scanty. The University of Nigeria Teaching Hospital, Enugu was established in 1970 and is the oldest and largest tertiary care centre in Eastern Nigeria. Vaginal hysterectomies performed in the institution have not been previously audited. This study was carried out to determine the rate of vaginal hysterectomy and to document the indications for and the frequency and type of complications encountered during vaginal hysterectomies at the University of Nigeria Teaching Hospital, Enugu.

Materials and Methods

This was a retrospective study of vaginal hysterectomies performed at the University of Nigeria Teaching Hospital, Enugu, Eastern Nigeria from 1st January 1995 to 31st December 2000. The epidemiological characteristics of the patients, the indications for, the nature and frequency of complications as well as the operative findings were extracted from the patients' case files. The present paper reports on the 84 women who underwent vaginal hysterectomy during the study period. The total number of gynaecological operations and admissions during this period were also obtained from both the theatre and ward registers.

Results

During the six-year period, there was a total of 6417 gynaecological operations, 364 of which were hysterectomies (284 abdominal and 84 vaginal). This gave a rate of 57 hysterectomies (both abdominal and vaginal) per 1000 gynaecological operations. For vaginal hysterectomy alone, the rate was 13 per 1000 gynaecological operations. For the entire six-year period, this represented an average of 14 vaginal hysterectomies per year. There were 2522 gynaecological admissions during the study period.

The age and parity distributions of the 84 women who underwent vaginal hysterectomy are shown in Table 1.

Table 1
Age and parity distributions of 84 vaginal hysterectomy patients in Enugu, Nigeria

Age	No (%)	Parity	No (%)
≤20	0 (0.0)	0	0 (0.0)
21 -30	0 (0.0)	1	2 (2.4)
31 -40	8 (9.5)	2	1 (1.2)
41 -50	29 (34.5)	3	2 (2.4)
51 -60	27 (32.1)	4	6 (7.2)
61 -70	17 (20.2)	5	11 (13.1)
71 -80	2 (2.4)	6	17 (20.2)
Unrecorded	1 (1.2)	7	13 (15.5)
		8	12 (14.3)
		9	11 (13.1)
		10	3 (3.6)
		11	3 (3.6)
		12	2 (2.4)
		Unrecorded	1 (1.2)
Total	84 (100.0)		84 (100.0)

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None of the patients was below the age of 30 years. Eighty point nine percent (80.9%) of the women were within the 31-70 year age group. Sixty two point six percent of the women were postmenopausal. No nulliparous woman had a vaginal hysterectomy. Sixty-four (76.2%) of the subjects were of parity 5-9. The modal parity was 6. Sixty (71.4%), 16 (19.0%), 2 (2.4%) and 2 (2.4%) subjects had their occupation listed as housewives, farmers traders and teachers respectively. The occupation of the remaining 4 (4.8%) were not recorded.

Genital prolapse was the only indication for vaginal hysterectomy in all the 84 (100%) women. The following were the findings at vaginal hysterectomy. The uterine sizes in all the 84 women were below 12 weeks gestation size. Three (3.6%) and 5 (6.0%) of the women had diseased left and right ovaries respectively. No obvious tubal disease was encountered. Five (6.0%), 3(3.6%), and 1 (1.2%) of the women had mild, moderate and severe intrapelvic adhesions respectively. Five (6.0%) of the subjects had bilateralFive (6.0%) of the subjects had bilateral oophorectomy while 2 (2.4%) and 1 (1.2%) had right and left unilateral oophorectomies respectively. Other incidental operations done in the patients were anterior colporrhaphy in all the 84 (100%) patients, and posterior colporrhaphy in 25 (29.8%) patients. There was no record of incidental appendicectomy in any of the patients.

The complications encountered are shown in Table 2.

Table 2

Complications among 84 vaginal hysterectomy patients in Enugu, Nigeria

Complication	No	%
Reactionary haemorrhage	3	3.6
Secondary haemorrhage	2	2.4
Pelvic abscess	2	2.4
Pelvic haematoma	2	2.4
Wound sepsis	3	3.6
Urinary tract infection	5	3.0
Death	0	0.0
No complication	69	79.8
Total	86*	100.0

* 2 patients had 2 complications each.

There was no operative mortality. Complications were recorded in 15 women, giving a complication rate of 17.9%. Two women had two complications each, raising the total number of complications to 17. Of these 17 complications, urinary tract infection was seen in 5 (6.0%), wound sepsis in 3 (3.6%), reactionary haemorrhage in 3 (3.6%), secondary haemorrhage in 2 (2.4%), pelvic abscess in 2 (2.4%), and pelvic haematoma in 2 (2.4%).

With respect to the intraoperative blood loss encountered during vaginal hysterectomy, 63 (75.0%) of the patients lost less than 500 mls, 1 (1.2%) lost 500-1000 mls while 1 (1.2%) patient lost 1001- 2000 mls. In 19 (22.6%) of the patients, there was no record of the intraoperative blood loss. Fourteen (16.7%) of the patients required blood transfusion either intra or postoperatively. There no record of psychiatric morbidity in any of the patients. Other associated medical disorders were hypertension in 10 (11.9%), bronchial asthma in 1 (1.2%), chronic bronchitis in 1 (1.2%), mitral valve disease in 1 (1.2%), and peptic ulcer in 1 (1.2%) of the patients.

The mean (± SD) hospital stay of the patients was 8.5 ± 1.8 days. Seventy (83.3%) of the 84 patients were discharged within 10 days. The rest were discharged between the 11th and 14th postoperative days.

Discussion

Two denominators "the number of gynaecological operations" and "gynaecological admissions" - were considered for use in calculating the hysterectomy rate/ratio in this study. "Gynaecological operation" was chosen for the following reasons: Firstly, since hysterectomy is a gynaecological operation, the use of "gynaecological operation" would produce a rate instead of a ratio that would have resulted from the use of "gynaecological admissions" as the denominator. Secondly, there were more gynaecological operations (6417) than gynaecological admissions (2522) during the study period making the use of the former to calculate the rate more reliable. Thus the use of "gynaecological admissions" would have excluded the larger number of women who had day case surgeries.

The hysterectomy rate among women in the United States of America is put at 330 per 1000 women[3], and giving an abdominal to vaginal hysterectomy ratio of 3:1 in the USA, this means that the vaginal hysterectomy rate in USA is about 80 per 1000 women. The hysterectomy rate for the UNTH was 140 per 1000 gynaecological admissions or 57 per 1000 gynaecological operations[4] and a vaginal hysterectomy rate of 13 per 1000 women undergoing gynaecological operations was obtained in this study. Even though the USA study was population-based and the present one hospital-based, there is every suggestion that the operation is less frequently performed in Nigeria than in the USA. In the United Kingdom, 20-25% of women have had a hysterectomy by their mid-fifties[5].

Vaginal hysterectomy has been done for a variety of indications such as leiomyoma, abnormal uterine bleeding, benign neoplasms, genital prolapse, etc. In the present study, however, genital prolapse was the only indication for all the 84 vaginal hysterectomies done during the 6 year period. The possibility exists that some of the hysterectomies that could have been done vaginally were done abdominally, despite the fewer complications, and decreased morbidity, faster recuperation and lower hospital costs associated with vaginal hysterectomy compared to the abdominal route[2,6,7]. Again the experience and proficiency of the surgeon and available equipment have roles to play in determining the route for hysterectomy. Vaginal hysterectomy can be more easily performed if the

cervix can be pulled down as far as the vaginal orifice, as is the case in most genital prolapses. If the cervix cannot be pulled down to this extent, although it is possible to perform vaginal hysterectomy, the operation is technically more difficult[8]. Greater use of operating laparoscopy will no doubt help to convert many abdominal hysterectomies into a vaginal procedure or convert a difficult vaginal hysterectomy into an easy one[2,9]. A previous study[7] had shown that the vaginal route may not be as technically easy for other indications in Nigerians as it is in Caucasians[1] because of severe pelvic adhesions frequently seen in Nigerian women requiring hysterectomy. However, the vaginal route can be employed increasingly for hysterectomy in Nigerians not only for genital prolapse but also for smaller sized uterine fibroids and other benign uterine conditions such as dysfunctional uterine bleeding[7].

Aetiological factors for genital prolapse such as multiparity, old age and postmenopausal state[8] were reflected in the patients studied as 86.9% of the women were within the 31-70 year age group, 62.6% were postmenopausal and 76.2% were grandmultiparous.

The absence of operative mortality in the present study agrees with the finding of 0-0.01% in other studies, showing that of all hysterectomies, the vaginal route is the safest[8]. However, the relative safety of vaginal over abdominal hysterectomy may be because more difficult cases are usually tackled abdominally. The overall morbidity rate of 17.8% in the present study was moderate with urinary tract infection being the most common complication. However, since urine cultures were done only in patients who had symptoms of urinary tract infection and all vaginal hysterectomy patients were on prophylactic antibiotic therapy, it is difficult to know the actual prevalence of UTI as a complication of vaginal hysterectomy or whether the UTI predated or postdated the operation. The prevalence of other complications is comparable to that found in other studies[8].

Approximately one in every six of the patients who had vaginal hysterectomy had some associated medical disorder. This underscores the necessity of full clinical evaluation of all patients preoperatively to detect and control such disorders before surgery and so minimize intra and postoperative complications. Post hysterectomy depression, which is seen in 4-15% of cases undergoing hysterectomy in the United Kingdom[10], was not recorded in any of our patients. It is possible that sympathetic and caring family members (both immediate and extended) around them tended to make women in our environment adjust better to an experience as traumatic as losing the uterus.

The fact that only 84 vaginal hysterectomies were done over a period of 6-year period, i.e. 14 vaginal hysterectomies per year, has serious implications for the training of residents in performing this surgery. This calls for a greater use by our gynaecologists of the vaginal route for hysterectomies for indications other than genital prolapse as recommended previously[7].

We conclude that the vaginal hysterectomy rate in Enugu, Nigeria is 13 per 1000 women undergoing gynaecological operations; the only indication for the operation was genital prolapse and urinary tract infection was the commonest complication encountered.

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