International Journal of Clinical Obstetrics and Gynaecology

ISSN (P): 2522-6614
ISSN (E): 2522-6622

www.gynaecologyjournal.com
2019; 3(5): 161-165
Received: 16-07-2019
Accepted: 18-08-2019

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An audit of gynaecological hysterectomies in the university of Uyo teaching hospital: Case for non-descent vaginal hysterectomy

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DOI: https://doi.org/10.33545/gynae.2019.v3.i5c.347

Abstract
Hysterectomy is the commonest gynaecological surgery. The study aimed to determine the rates and compare the outcomes of the different routes, and ascertain the visibility of an option. A 5-year retrospective study of all hysterectomies at the University of Uyo teaching hospital: their routes and associated morbidities; and assess the possibility of the vaginal route in total abdominal hysterectomies using a checklist designed for the study. 116 hysterectomies accounted for 27.9% of major gynaecological surgeries. 107 (92.2%) were for benign gynaecological conditions. Twenty-six (22.41%) hysterectomies were vaginal with uterovaginal prolapse as the sole indication. The peak age range of women who had vaginal hysterectomy was 50-59 years (46.2%), mean, 53.8years. Vaginal hysterectomy was associated with fewer complications, X^2/P-value of 16,091/0.01.6. Twenty-nine (35.80%) total abdominal hysterectomies could have been carried out vaginally. There was under-utilisation of the vaginal route even in the absence of major contraindications to it. There is therefore an urgent need for a survey amongst gynaecologist to investigate the reasons for restrictive use of vaginal hysterectomy especially non descent procedures.

Keywords: Hysterectomy, benign, gynaecological, uterovaginal prolapsed

Introduction
Hysterectomy is the commonest gynaecological surgery globally, more especially in the developed countries. The frequency at which this operation is done varies widely from one country to another with more than 600,000 and 100,000 cases estimated to be carried out annually in the USA and England respectively. [1, 2] In a study done in Gombe, North Eastern Nigeria, hysterectomy consisted of 10.7% of all major gynaecological operations [3]. The rate at which hysterectomy is performed has not reduced in the past few years despite increasing availability of options like endometrial ablation, levonorgetrel intrauterine system and uterine artery embolization for the management of abnormal uterine bleeding and uterine fibroids [1, 4, 5].
The commonest indications for hysterectomy continue to be uterine fibroid and menstrual disorders both in developed and developing countries [2, 6]. Hysterectomy can be performed vaginally, abdominally or with laparoscopic or robotic assistance.
The most common route of hysterectomy for benign disease is abdominal (66%) followed by vaginal (22%) and laparoscopic (12%) routes [2, 7]. However, many studies on an optimal surgical approach to hysterectomy along with the American college of obstetrics and gynaecology (ACOG) committee opinion No. 444 have recommended vaginal hysterectomy when feasible as the approach of choice because of better outcomes, greater cost effectiveness and lower complication rates when compared with the open approaches [7, 10]. If vaginal hysterectomy is not possible then laparoscopic hysterectomy should be performed in preference to abdominal hysterectomy [11]. The advantages vaginal hysterectomy has over abdominal hysterectomy include reduced hospital stay and cost, shorter recovery time and less infectious morbidity [4, 7, 8, 10, 12].
The ratio of vaginal hysterectomy to abdominal hysterectomy is approximately 1:3 but varies from 1:6 to 1:2 depending on the geographic region, the surgeons skills, the absence of clear guidelines for selecting route, lack of patients knowledge about options and inappropriate decision making [13] An indication for hysterectomy in the absence of any contraindication to the vaginal route is an indication to perform vaginal hysterectomy [11, 13].

[Factors that may influence the choice of the route of hysterectomy for benign gynaecological conditions include size and shape of the vagina and uterus, accessibility to the uterus, extent of extra-uterine disease, the need for concurrent procedures, surgeons experience, available technology and the preference of the informed patient [1, 7, 9, 10]. Many of the traditional contraindication to vaginal hysterectomy like nulliparity, enlarged uterus, previous caesarean delivery and previous pelvic laparotomy are no longer considered absolute contraindications to vaginal hysterectomy according to several studies [7, 9, 10].

The University of Uyo Teaching hospital, a major tertiary health facility in Akwa Ibom state, in the South - South geopolitical zone of Nigeria serves as a major referral centre for both Government-owned and privately-owned hospitals in Uyo and its environs.

This study is a retrospective study of hysterectomies performed between 2011 and 2015. The aims were to determine the rates and compare the outcomes of the different routes of hysterectomy available in our centre, and ascertain the visibility of the vaginal route in all cases of abdominal hysterectomy carried out for benign gynaecological conditions.

Methodology

This was a 5 year retrospective analytical study of all Hysterectomies carried out in the gynaecological unit of the University of Uyo Teaching Hospital between 1st January, 2011 and 31st December, 2015. The sources of information were the gynaecological clinic and ward admissions registers, as well as the theatre (operations) register and case files of all patients who had hysterectomy within the period of study.

The case notes of all patients who had the hysterectomy were retrieved from the hospital records department and categorized based on the route (vaginal or abdominal) used. The case files of patients who had vaginal hysterectomy and abdominal hysterectomy were studied separately and comparatively analysed using a proforma that was designed for the study. The information abstracted for analysis included the indications for the procedure, the socio-demographic characteristics, obstetric history of those who had vaginal hysterectomy and complications associated with different routes.

The case notes documented as abdominal hysterectomy whose indications were for women with benign gynaecological pathologies were also further analyzed for contraindications to vaginal hysterectomy, and other possible reasons why the vaginal route was not utilized. For the purpose of this study, both known relative and absolute contraindications to vaginal hysterectomy were considered and accepted from information available in the patients` history, clinical abdomino-pelvic and ultrasound findings. The checklist used for this study included: nulliparity, chronic pelvic pain and chronic pelvic inflammatory disease, previous pelvic surgery including Caesarean section, adnexal pathology, a narrow vagina less than 2 finger breadths, documented uterine immobility and uterine size greater than 12weeks gestation at pelvic examination [7, 9, 10]. All data abstracted were entered into a proforma designed for the study and analyzed using the SPSS 20 and presented as tables and percentages, while a P-value of less than 0.05 was considered statistically significant.

Excluded from this study were hysterectomies performed for obstetric reasons and case notes with inadequate information for analysis.

Results

During the period of study, 416 major gynaecological procedures were carried out. There were 116 hysterectomies performed during the period accounting for 27.9% of major gynaecological surgeries. Of all the 116 hysterectomies, 107 (92.2%) were carried out on account of benign gynaecological conditions, while 9(7.8%) were for gynaecological malignancies. The commonest indication for hysterectomy was uterine fibroids with or without menorrhagia (41.4%), followed by uterovaginal prolapse (22.41%) and gynaecological malignancies (12.1%) while the least indication for hysterectomy was adenomyosis which accounted for 1.7% of the cases. (Table 1)

Twenty six (22.41%) of the 116 hysterectomies performed were documented as vaginal hysterectomy, all indicated by uterovaginal prolapse. Thus vaginal hysterectomy accounted for 6.25% of major gynaecological procedures. The ratio of Vaginal to Abdominal hysterectomy for benign gynaecological conditions during the period was 1:3.5. (Table 2)

The sociodemographic characteristics of the women who had vaginal hysterectomy showed that the age range was 30-65years with a peak age range of 50-59 years (46.2%) while 7(26.9%) and 6(23.1%) of the women were 40-49years and above 60years respectively. The mean age of the women was 53.8years. Most of the patients were of the Ibibio tribe (38.5%) and married (46.1%); while 30.8% and 23.1% of them were widowed and divorced respectively. The majority of the patients were farmers (30.8%), traders (23.1%) and housewives (23.1%). (Table 3)

The majority of the patients who had vaginal hysterectomy were multiparous women with 34% and 50% having had 4 and 5 or more deliveries respectively. No nulliparous or primiparous woman had vaginal hysterectomy during the study period. (Table 4).

Postoperatively, most of the patients who had vaginal hysterectomy were discharged within a maximum of 7days (57.7%) while one patient (3.8%) had prolonged postoperative hospitalisation of over 3 weeks due to multiple co-morbidities and complications. (Table 5)

Vaginal hysterectomy was associated with less postoperative morbidity compared to abdominal hysterectomy for benign gynaecological procedures. There was a significant association between route of hysterectomy and complications, X^2/P-value of 16,091/0.016.

(Table 6)

The vaginal route could be an option in 29 of 81 or 35.80% of the total abdominal hysterectomies carried out for benign gynaecological conditions. The vaginal route was considered possible in all the hysterectomies indicated by cervical intraepithelial neoplasia, dysfunctional uterine bleeding and adenomyosis, while it was an optional route in 62.5% and 23.9% of the procedures carried out for cervical polyps and uterine fibroids respectively. (Table 7)

Tables of results

Table 1: Indications for Gynaecological Hysterectomy in Uuth 2011 - 2015

Indications	Frequency(n)	Percentage
Uterine fibroids	48	41.4
Uterovaginal prolapse	26	22.4
Benign ovarian tumors	14	12.1
Gynaecological malignancies	9	7.6
Cervical polyp	8	6.9
Cervical intraepithelial neoplasia	5	4.3
Dysfunctional uterine bleeding	4	3.5
Adenomyosis	2	1.7
Total	116	100

Table 2: Distribution of hysterectomy by route

Route	Frequency (n)	Percentage	Ratio
Abdominal	90	77.6	3.5
Vaginal	26	22.4	1
Total	116	100	1:3.5

Table 3: Socio-Demographic Characteristics of Vaginal Hysterectomy Patients (N=26)

Variable	Number	Percentage
Age(years)		
30-39	1	3.8
40-49	7	26.9
50-59	12	46.2
60 and above	6	23.1
Mean age 53.8years		
Ethnic group		
Ibibio	10	38.5
Anang	4	15.4
Oron	5	19.2
Others (Ibo, Efik)	7	26.9
Marital status		
Married	12	46.1
Widowed	8	30.8
Divorced	6	23.1
Occupation		
Farming	8	30.8
Trading	6	23.1
House wife	6	23.1
Skilled	3	11.5
Civil servants	3	11.5
TOTAL	26	100

Table 4: Parity of patients who had vaginal hysterectomy

Parity	Frequency	Percentage
0	0	0.0
1	0	0.0
2	1	3.8
3	3	11.5
4	9	34.7
=/>5	13	50.0
TOTAL	26	10

Table 5: Duration of hospitalization postoperatively

Duration (days)	Frequency	Percentage
Less than 8	19	57.7
8- 14	4	30.8
15-21	2	7.7
21 and above	1	3.8
Total	26	100

Table 6: Mobidity associated with the hysterectomy

Complication	TAH N*(%)	VAH N*(%)	X^2/p value
Anaemia	11(30.6)	3(37.5)	16,091/0.016
Haemorrhage	0 (0.0)	2(25.0)	
Vaginitis	6(16.7)	1(12.5)	
Pyrexia	15(41.7)	1(12.5)	
Dysuria	0(0.0)	1(12.5)	
Wound dehiscence	4(11.1)	0(0.0)	
Total	36(100)	8(100)	

*some patients had multiple complications

Table 7: Abbominal hysterectomies with no contraindication to the vaginal route and ndvh condidered an option

S/N	Indication (TAH)	N(TAH)	VAH Option (N)	VAH Option (%)
1	Uterine fibroid	48	13	23.9
2	Cervical polyp	8	5	62.5
3	Cervical intra-epithelial neoplasia	5	5	100
4	Dysfunctional uterine bleeding	4	4	100
5	Adenomyosis	2	2	100
6	Benign ovarian tumors	14	0	0
7	Gynaecological malignancie	9	0	0
	Total	81 for benign	29	35.8% (overall)

Discussion

The prevalence of hysterectomy in this study was 22.9%. This is comparable to the combined hysterectomy (abdominal & vaginal) rate of 25% of all major gynaecological operations in Jos. [13] but much higher than other reports [3, 6, 14]. This may be a function of geographical and cultural differences in the acceptability of hysterectomy as definitive treatment for some gynaecological conditions in the various centres and regions in Nigeria where the studies were carried out. The willingness and ease in recourse to hysterectomy in managing benign gynaecological conditions may also vary among consultant gynaecologists in the different centres.

This study also revealed that for the duration under review, majority of hysterectomies were carried out via the abdominal route, while the vaginal route constituted only 22.4%. This rate of vaginal hysterectomy was similar to 21% found in a South eastern Nigerian study [15] However, it is noteworthy that lower vaginal hysterectomy rates of 7.9% and 10% (of all hysterectomies) were found in some studies in Northern Nigeria; [16, 17] while a higher rate was found in a study in Owerri in South eastern Nigeria [14]. The wide difference in proportion of patients who underwent vaginal hysterectomy may be due to the variation in the relative contraindications present in different patients since most our patients normally present late when uterine fibroid, found to be the commonest indication in this and most studies [3, 6, 20, 22] are mostly multiple with enormous uterine sizes greater than 12 weeks gestation. The foremost and almost only indication for vaginal hysterectomy in developing countries remains genital prolapse whose major risk factor is the high fertility rate found in these regions [3, 18, 19]. Even in the presence of uterovaginal prolapse, the absence of necessary equipments and a dearth in the skill for morcellation techniques may constitute obstacles to the utilisation of the vaginal route for hysterectomy when there are no other documented absolute contraindications in women with uterine fibroids. A dearth of

skill for non-descent vaginal hysterectomy and morcellation techniques may be other possible reasons why the vaginal route was not utilized by our gynaecologists even when there were no documented absolute contraindications.

The ratio of vaginal hysterectomy (VH) to abdominal hysterectomy (AH) for benign gynaecological conditions in this study of 1:3.5 is similar to what obtains in many Nigerian and sub-Sahara health facilities with variations mainly dependent on the vaginal hysterectomy rate [3]. This, however is different from findings from other centres, where VH rate (though still lower than AH rate) is much higher [14, 20] The ratio of vaginal to Abdominal hysterectomy was even much lower in a North central Nigerian study [21] This is a result of variations in the indications for hysterectomy in different centres and the practice amongst gynaecologists in Nigeria. In spite of the overwhelming advantages vaginal hysterectomy (VH) has over abdominal hysterectomy (AH) [7, 10]. The abdominal route is remains surprisingly disproportionately higher in our study and others [3, 13-17].

The majority of our vaginal hysterectomy patients were postmenopausal with the highest age group been 50 – 59 years. This can be attributed to the socio-cultural factor regarding acceptability of hysterectomy as very high premium is placed on childbirth. Only few of our women, will consent to the removal of their uterus, even in the face of pathology during their reproductive years. This shows that postmenopausal women are more likely to undergo vaginal hysterectomy when the pelvic supports are weak and it's easier to have access to the uterus through the vaginal route. This finding agrees with other studies [3, 6, 14, 20].

Most of the patients were married and were farmers. Their average parity was 4.3, with a modal parity of 5 or more. This explains their relatively higher acceptance rate of hysterectomy among this group of women having completed their desired family size and the high proportion of uterovaginal prolapse because of the effects of pregnancies and deliveries on the pelvic floor. This findings are in agreement with those of other studies [20, 23].

Majority of the patients were on admission for only 5 – 8 days (73.1%), aduration similar to those of other studies [3, 14]. This suggest very low rate of complications following these procedures. Postoperative anaemia was the commonest complication in our study and another study [6] but however different from studies done at other centres [3, 13- 14, 20] There was no mortality in this study as was the case in other studies [3, 12]. This supports findings from other studies about the safety of the vaginal procedure over other route of hysterectomy [8, 9].

In this study like others, [14-16, 19, 20, 22, 23] all the vaginal hysterectomies were carried out on account of uterovaginal prolapse. Our analysis showed that 35.8% of the abdominal hysterectomies carried out for benign gynaecological pathologies, could have been carried out through the vaginal route as there were no clear contraindications to this alternative route. The implication of this is a possible missed opportunity for the avoidance and/or a reduction in the risks and morbidity associated with laparotomy for abdominal hysterectomy, and other benefits of vaginal hysterectomy such as a reduced hospital stay and cost, shorter recovery time and less infectious morbidity found in this study and others [4, 7, 8, 10, 12].

This suggests an unmet need for pelvic surgery either because of lack of skill or because of the gynaecologist preference for abdominal route as a routine procedure. This situation is however different from what obtains in other centres [13, 24-27] where non – decent vaginal hysterectomies are a common and preferred procedure. An indication for hysterectomy in the absence of contraindications to vaginal hysterectomy is enough reason to perform hysterectomy through the vaginal route even with a bulky uterus [26-28] The presence of a previous caesarean section scar is no longer viewed as a contraindication to non-descent vaginal hysterectomy and is practiced in some centres [29] The practice of non descent vaginal hysterectomy has been found to be safe, associated with shorter hospital stay and fewer complications and morbidity and its thus a cost effective method of hysterectomy in women with large uteri requiring hysterectomy for benign conditions [26].

In conclusion, this study has shown that the indication for vaginal hysterectomy is limited in view of the numerous advantages it offers over abdominal hysterectomy. The study also showed the under-utilisation of the vaginal route even in the absence of major contraindications to it. There is therefore an urgent need for a survey amongst gynaecologist to investigate the reasons for restrictive use of vaginal hysterectomy in benign gynaecological conditions especially those with no absolute contraindications to this option. This we have started and will form the next part of this research. This is moreso considering the practice in most centres around as nondescent vaginal hysterectomy remains an art" to be expertise by all gynaecologists [30] There is the need to unearth all obstacle to utilisation of vaginal hysterectomy. There may be need for more training of gynaecologists and residents in non-descent vaginal hysterectomy (NDVH) and morcellation techniques to widen the indications for vaginal hysterectomy with its attendant advantages in gynaecological surgery if such surveys reveal obvious deficiencies.

References

1. Goolab BD. Vaginal hysterectomy and relative merits over abdominal and laparoscopically assisted hysterectomy. Best Practice & Research Clinical Obstetrics and Gynaecology. 2013; 27: 393–413
2. Massimo C, Stefano I. Laparoscopic versus vaginal hysterectomy for benign pathology. Curr Opin Obstet Gynecol. 2010; 22:304–308
3. Bukar M, Audu BM, Yahaya UR. Hysterectomy for benign gynaecological conditions at Gombe, North eastern Nigeria. Niger Med J. 2010; 51:35-8
4. Mamta MK, Rebecca CR. Vaginal Hysterectomy for Benign Disease without Prolapse. clinical obstetrics and gynaecology. 2010; 53(1):1-12
5. Matthias D, Diana W, Klaus-Dieter W, Friederik S. Attitudes toward mode of hysterectomy: a survey-based study among German gynaecologists. European Journal of Obstetrics & Gynecology and Reproductive Biology. 2012, 164(2):216–220
6. Obilahi-Abhulimen, Ibrahim IA, Omoregie OB. Hysterectomy in the Niger Delta of Nigeria: A Clinical Study of Indications and Outcome. Greener Journal of Medical Sciences. 2013; 3(5):160-165
7. Danielle DM, Amy JP. The Challenging Vaginal Hysterectomy. Postgraduate obstetrics & gynecology. 2010; 30(22):1-7
8. Nieboer TE *et al*. Surgical approach to hysterectomy for benign gynaecological disease. Cochrane Database of Systematic Reviews, 2009, 3. Art. No.: CD003677. DOI: 10.1002/14651858.CD003677.
9. Choosing the Route of Hysterectomy for Benign Disease. ACOG Committee Opinion No. 444. American College of Obstetricians and Gynecologists. Obstet Gynecol. 2009;

114:1156-8.
10. Andrew I B. Hysterectomy in the 21st Century: Different Approaches, Different Challenges. Clinical obstetrics and gynaecology. 2006; 49(4):722–735
11. Garry R, Fountain J, Mason S, *et al*. The eVALuate study: two parallel randomised trials, one comparing laparoscopic with abdominal hysterectomy, the other comparing laparoscopic with vaginal hysterectomy [published correction appears in BMJ. 2004; 328(7438):494]. BMJ. 2004; 328(7432):129. https://doi:10.1136/bmj.37984.623889.F6
12. John OLD, Bethany DS. Selecting the route for hysterectomy: A structured approach. Contemporary ob/gyn, 2013, 1-10
13. Daru PH, Magaji A, Nyango D, Karshima J, Pam I, Shambe I. Vaginal hysterectomy at Jos university teaching hospital, Jos, Nigeria. J. West Afr Coll Surg. 2011; 1(3):26-36.
14. Onyeabochukwu A Duke, *et al*. A six year review of hysterectomy for benign gynecological conditions at the federal medical centre, Owerri. Journal of current research in science (issn 2322-5009) coden (USA): jcrsdj. 2014; 2(2):228-232
15. Obiechina NJ, Ugboaja JO, Onyegbule OA, Eleje GU. Vaginal hysterectomy in a Nigerian tertiary health facility. Niger J Med. 2010; 19:324-5
16. Koledade AK, Oguntayo AO, Zayyan MS, Avidime S, Samaila MO, Adesiyun AG. Hysterectomies pattern at a tertiary healthcare centre, Northern Nigeria. Trop. J Obstet Gynaecol. 2018; 35:184-7.
17. Ocheke AN, Ekwempu CC, Musa J. Underutilization of vaginal hysterectomy and its impact on residency training. West Afr J Med. 2009; 28:323-6.
18. Okeke TC, Ikeako LC, Ezenyeaku CCT. Underexposure of Residents in Training in the Art of Vaginal Hysterectomy in Nigeria. Am J Clin Med Res. 2014; 2:22-5.
19. Ahmed ZD, Taiwo N. Indications and Outcome of Gynaecological Hysterectomy at Aminu Kano Teaching Hospital, Kano: A 5-Year Review. Open J Obstet Gynecol. 2015; 5:298-304
20. Umeora OUJ, Onoh RC, Eze JN, Igberase GO. Abdominal versus vaginal hysterectomy: Appraisal of indications and complications in a Nigerian Federal Medical Centre. NJOG. 2009; 4(1):25-29
21. Atta AA, Abdullahi HI. Vaginal hysterectomy at University of Abuja teaching hospital: A 5-year review. N Niger J Clin Res. 2018; 7:48-50
22. Awoleke JO. An audit of hysterectomy at the Lagos University Teaching Hospital, Lagos. Trop J Obstet Gynaecol. 2012; 29(1):96-102
23. Iklaki CC. *et al*. Restrictive use of vaginal hysterectomy: Another skill disappearing? A five year review at university of Calabar teaching hospital, Calabar, Nigeria. Journal of Medicine and Medical Research. 2013; 1(1):1-6
24. Leung PL, Tsang SW, Yuen PM. An audit on hysterectomy for benign diseases in public hospitals in Hong Kong. Hong Kong Med J. 2007; 13:187-93
25. Balakrishnan D, Dibyajyoti GA. Comparison Between Non-Descent Vaginal Hysterectomy and Total Abdominal Hysterectomy. J Clin Diagn Res. 2016; 10(1):11–14. doi:10.7860/JCDR/2016/15937.7119
26. Rameshkumar R Sahana N. Naik, Dhanalakshmi. Non-descent vaginal hysterectomy for large uterus-safety and feasibility. Int J Reprod Contracept Obstet Gynecol. 2018; 7(9):3563-3567
27. Sahin Y. Vaginal hysterectomy and oophorectomy in women with 12-20 weeks' size uterus. Acta Obstst Gynecol Scand. 2007; 86(11):1359-69.
28. Mazdisnian F, Kurzel RB, Coe S, Bosuk M, Montz F. vaginal hysterectomy by uterine morcellation, an efficient non morbid procedure. Obstet gynecol. 1995; 86:60–4.
29. Neelam Nalini, Bijeta, Shashi Kumari. Previous LSCS: no more contraindication for non-descent vaginal hysterectomy. International Journal of Contemporary Medical Research. 2018; 5(8):H1-H4.
30. Nalini N. Non descent vaginal hysterectomy “an art” to be expertise by all gynaecologists. Obstet Gynaecol Today. 2007; 12;203-6.