American Journal of Clinical Medicine Research, 2014, Vol. 2, No. 1, 22-25
Available online at http://pubs.sciepub.com/ajcmr/2/1/6

DOI:10.12691/ajcmr-2-1-6

Underexposure of Residents in Training in the Art of Vaginal Hysterectomy in Nigeria

Okeke TC[1,*], Ikeako LC[2], Ezenyeaku CCT[2]

[1]Department of Obstetrics & Gynaecology, University of Nigeria Teaching Hospital (UNTH), Enugu, Nigeria
[2]Department of Obstetrics & Gynaecology, Anambra State University Teaching Hospital, Awka, Nigeria
*Corresponding author: ubabiketochukwu@yahoo.com

Received November 23, 2013; Revised December 13, 2013; Accepted January 16, 2014

Abstract Worldwide, vaginal route is the gynaecologist's route of surgery. However, abdominal route is the favoured route of hysterectomy in Nigeria inspite of the advantages of vaginal route. This descriptive review is to awaken interest in the teaching and surgical exposure of residents in obstetrics and gynaecology in the field of vaginal surgeries. The ratio of vaginal hysterectomy to abdominal hysterectomy in Nigeria ranges from 1:4 to 1:9. The frequency of vaginal hysterectomy in centres in Nigeria ranges from 10-23%. These rates are lower than the figures quoted from the United States (25%), France (50%), Australia (40-50%) and Saudi Arabia (28%). Vaginal hysterectomy is under-utilized in Nigeria. Most centres hardly do up to five vaginal hysterectomies in a year. Residents in training hardly perform vaginal hysterectomy and may not have watched or assisted in up to ten vaginal hysterectomies before the residency programme is completed. This is completely inadequate for acquisition of proficiency. There is inadequacy and under exposure of residents in the art of vaginal surgeries in Nigeria. There is need for workshops, training and retraining of residents in the field of vaginal surgeries to meet these challenges. This would ensure production of quality gynaecologists with skills and proficiency in vaginal surgery.

Keywords: *Under-exposure, residents, vaginal hysterectomy, abdominal hysterectomy, Nigeria*

Cite This Article: Okeke TC, Ikeako LC, and Ezenyeaku CCT, "Underexposure of Residents in Training in the Art of Vaginal Hysterectomy in Nigeria." *American Journal of Clinical Medicine Research* 2, no. 1 (2014): 22-25. doi: 10.12691/ajcmr-2-1-6.

1. Introduction

Vaginal hysterectomy is the removal of uterus through the vaginal route and subsequently approximating the space previously occupied by the uterus with a shelf of tissue derived from the lateral attachments of the uterus [1,2,3,4,5]. The vaginal route is the gynaecologist's route of surgery [5,6], and is associated with lower overall morbidity and mortality, reduced operative time, reduced complications, shorter hospital stay and reduced cost to the patient in benign gynaecological conditions [2,7,8,9]. However abdominal hysterectomy is the favoured route of procedure worldwide inspite of the advantages of vaginal route [7,8,9]. The ease and convenience by which hysterectomy can be performed through a wide open abdominal incision, along with a lackadaisical attitude to acquiring the necessary surgical expertise required for vaginal hysterectomy, have led to a large number of gynaecologists removing the uterus abdominally. This is procedure of least resistance and is justified by the mistaken belief that the vaginal route should be avoided in the absence of uterine descent or visible prolapse. Even in current practice, the superiority of hysterectomy by the vaginal route is not denied. The famous French surgeon Doyen in 1939 insisted that no one could call himself a gynaecologist until he performed vaginal hysterectomy "in private" [10].

The reasons put forward for underexposure of residents in the art of vaginal hysterectomy in Nigeria are lack of well trained gynaecologists in the art of vaginal surgeries, absence of reviewed practice guidelines, absence of promotion of vaginal hysterectomy, surgeon's preference for abdominal approach because of wide open abdominal incision, high incidence of pelvic adhesions frequently seen in Nigerian women and finally cost of vaginal hysterectomy [7,9,11,12].

In Nigeria, recently introduced laparoscopically-assisted vaginal hysterectomy could have been in favour of hysterectomy performed vaginally because of less postoperative morbidity, shorter hospital stay and quicker return to normal activity [13]. However, the cost, unavailability of the equipment with high incidence of pelvic adhesions often seen in Nigerian women and women with uterine fibroids more than 12weeks gestational size are the major drawbacks to this practice in our environment [10,11,12].

The aim of this review is to awaken interest in the teaching and surgical exposure of residents in obstetrics and gynaecology in the field of vaginal surgeries. The production of quality gynaecologists with skills and proficiency in vaginal surgeries would be the ultimate goal in Nigeria.

2. Methods of Literature Search (Methodology)

This was a 3-month descriptive review of vaginal hysterectomy. Relevant literature search on vaginal hysterectomy was from June 1st, 2013 to August 31st, 2013. A search of literature on vaginal hysterectomy published in English was conducted. Relevant materials on vaginal hysterectomy were selected. The keywords used are vaginal hysterectomy, abdominal hysterectomy and incidence of both vaginal and abdominal hysterectomies in selected centres in Nigeria, USA, France, Australia and Saudi Arabia with selected references, conference papers, technical reports, journal articles, abstracts, relevant books, and internet articles using Medline, Google scholar, and Pubmed databases were critically reviewed.

2.1. Incidence

The frequency of vaginal hysterectomy in centres in Nigeria range from 10-23% [11,16]. These rates are lower than the figures quoted from United States (25%) [17], France (50%) [18], Australia (40-50%) [19], Saudi Arabia (28%) [20]. The ratio of vaginal hysterectomy to abdominal hysterectomy in the United States is approximately 1:4 [6]. The ratio of vaginal hysterectomy to abdominal hysterectomy in Nigeria ranges from 1:4 [21] to 1:9 [12]. Nigerian figures are lower than what is obtainable in other advanced countries despite vaginal route as gynaecologist's route of choice for hysterectomy for benign gynaecological conditions. Vaginal route is highly underutilized in Nigeria and in most developing nations inspite of obvious advantages of vaginal route over abdominal route of hysterectomy [8,21]. Vaginal hysterectomy is more commonly performed in blacks than in whites, and tends to be done more frequently by male gynaecologists than female gynaecologists [22,23].

2.1.1. Indications

Uterovaginal prolapse is the most common indication for vaginal hysterectomy [6]. Vaginal approach is the procedure of choice for the obese women requiring hysterectomy [24,25,26]. Vaginal hysterectomy was taken to be more difficult for other indications because of severe pelvic adhesions frequently seen in Nigerian women requiring hysterectomy, low surgical experience and expertise, and reduced exposure of residents in surgical competence in virtually all the centres in Nigeria [27,28,29]. Complex anatomy of the pelvis and technical challenge contribute to a steep curve for inexperienced surgeons [30]. Most centres hardly do up to five vaginal hysterectomies in a year. In most centres, residents in training hardly perform vaginal hysterectomy and by the time they finish the programme, no skill is acquired in performing vaginal hysterectomy [11,12]. In advanced countries a resident is expected to perform minimum of 25 vaginal hysterectomies during the residency training programme [31], however, in Nigeria a resident may not have watched or assisted in up to 10 vaginal hysterectomies before the residency programme is completed. This is completely inadequate for acquisition of proficiency [31]. Other indications for vaginal hysterectomy are symptomatic fibroids, dysfunctional uterine bleeding, adenomyosis, cervical intraepithelial neoplasm, endometrial malignancy, postmenopausal bleeding among others.

2.1.1.1. Contraindications

Vaginal hysterectomy is contraindicated in the following conditions, uterus more than 12weeks gestation size, limited vaginal space, restricted mobility of the uterus, adnexal pathology, vesico-vaginal fistula repair, cervix flush with vagina, invasive cervical malignancy, contracted bony pelvis, need to explore the upper abdomen and lack of surgical expertise [3].

2.2. Advantages of Vaginal Hysterectomy over Abdominal Hysterectomy

- Vaginal route is safer and carries a very low mortality rate (0.1%) [4].
- Negligible discomfort and postoperative shock. Patient hardly remembers she has gone through surgery. Analgesia requirement is less. Pulmonary function is better [4].
- Early return of bowel function due to lesser bowel handling and lesser requirement for intravenous fluids.
- Vaginal hysterectomy is better tolerated by elderly and obese women. Shorter hospital stay and reduced cost to the patient [2].
- Vaginal hysterectomy leaves no visible scar, little risk of later complications such as adhesions, intestinal obstruction and hernia [2].
- Shorter convalescence and decreased operative blood loss [2].

2.3. Problems with Vaginal Hysterectomy in Nigeria

There is relatively low acceptance rate for hysterectomy among Nigerian women [32]. Our women treasure their uterus so much that they are not ready to part with this God given organ. The reason for this is that in African tradition, marriage is revered and respected [33]. Any marriage without a child is viewed with contempt [33]. However, hysterectomy is associated with depression and altered self image [34,35]. Previous studies in Nigeria indicated that vaginal hysterectomy is infrequently and difficult to perform, technically more difficult for indications other than uterovaginal prolapse because of high incidence of severe pelvic adhesions frequently seen in Nigerian women requiring hystsrectomy [11,16]. Other indications requiring vaginal hysterectomy like uterine fibroids and cervical intraepithelial neoplasia are often performed through abdominal approach denying our residents the opportunity for exposure in vaginal hysterectomy.

Clinical experience and expertise would likely allow selection of patients for vaginal surgery more efficiently, skilled and experienced vaginal surgeons may place less weight on relative contraindications than novices [36,37]. Currently, there is inadequacy of the state of education and exposure in many residency programmes in the areas of vaginal hysterectomy and operative vaginal delivery in Nigeria [12]. In addition, many gynaecologists are not proficient with vaginal hysterectomy [38]. Provision of surgical competency to meet these inadequacies is lacking

in Nigeria. In adequate training is one of the factors limiting a more widespread adoption of vaginal hysterectomy. Furthermore, the ability to complete many hysterectomies abdominally, has contributed to the slow up take of vaginal hysterectomy among gynaecologists. The main drawback to vaginal hysterectomy is the need for well trained gynaecologists which has important implications for future gynaecological training [39,40,41].

Other reasons documented for the underexposure of residents in the art of vaginal hysterectomy are absence of reviewed practice guidelines, absence of promotion of vaginal hysterectomy in Nigeria and lastly cost of vaginal hysterectomy. There is need for workshops, training and retraining in our various centres to meet with these challenges. This will ensure that residents are better trained and exposed in these procedures.

3. Discussion

The outcome of vaginal hysterectomy is extraordinarily good, provided the indications for it are good [42]. Gynaecologists should endeavour to consider vaginal route in any hysterectomy, unless there is a contraindication to this should abdominal route be considered. Gynaecologists should attain a satisfactory degree of operating skill at different routes and should always remember the gynaecologist's route in vaginal hysterectomy. Currently, standard gynaecological practice dictates that, when feasible, vaginal hysterectomy is the surgical route of choice for benign hysterectomy [43,44,45]. This is based on various studies including both Cochrane review and randomized clinical trials, which have shown vaginal hysterectomy to be associated with reduced morbidity, reduced hospital stay and earlier return to normal activities compared with abdominal hysterectomy [44,46,47]. It is important to appreciate that shorter duration of hospital stay following vaginal hysterectomy has an economic consideration and should be resorted to whenever feasible [48,49,50]. Furthermore, vaginal hysterectomy is a primary and choicest route for morbidly obese women [51].

For the residency training in obstetrics and gynaecology, there is enough time and ample opportunity to learn and be exposed perfectly in the art of vaginal surgery. If the technique is carefully learnt, the operator's confidence will grow and fears diminish, while the judgement for indications and contraindications will sharpen [6]. Developing expertise in operative technique starts with favourable normal-size parous uterus with third-degree descent to gradually less favourable and finally what is considered unfavourable and difficult one [6].

To be addressed as a gynaecologist according to Doyen (famous French Surgeon) one must have performed vaginal hysterectomy "in private" [10]. There is need for quality gynaecologists with skills and proficiency in vaginal surgeries in Nigeria.

References

[1] Wilfred Shaw. Hysterectomy In: Shaw's textbook of operative gynaecology revised by Hudson CN, Setchell ME, Consulting editor Howkins J. 6th Edition. New Delhi, Elsevier 2001:115-139.

[2] Snyder TE, Stovall TG. Uterine leiomyomas and other benign pelvic masses. In: ling FW, Duff P (eds) Obstetrics and Gynecology Principles for Practice 1st Edition. New York McGraw-Hill. 2001:1151-1175.

[3] Stovall TG. Vaginal, abdominal and laparoscopic assisted hysterectomy. In: Mann WJ (Jr), Stovall TG (eds). Gynecologic Surgery 1st Edition New York Churchill Livingstone 1996:403-444.

[4] Jeffcoate. Hysterectomy and its aftermath. In: Jeffcoate's principles of gynaecology. Revised and updated from the 5th Edition by Bhatla N. London: Arnold 2001:785-790.

[5] Symonds I, Hamoud H. Dysfunctional uterine bleeding. In: Arulkumaran S, Symonds I, Fowlie A. (eds) Oxford Handbook of Obstetrics and Gynaecology 2nd Edition. New Delhi Oxford University Press 2004:495-501.

[6] Sheth SS. Vaginal hysterectomy. In: Studd J (ed) Progress in Obstetrics and Gynaecology. Edinburgh: Churchill Livingstone. 1993; 10:317-340.

[7] Kovac SR. Clinical Opinion: guidelines for hysterectomy. Am J Obstet Gynecol 2004; 191:635-640.

[8] Brill AI. Hysterectomy in the 21st Century: Different Approaches, Different Challenges. Clin Obstet Gynecol 2006; 49:722-735.

[9] Edozien LC. Hysterectomy for benign conditions. BMJ 2005; 330:1457-1458.

[10] Doyen Cited in Green-Armytage VB. Vaginal hysterectomy: new technique-follow-up of 500 consecutive operations for haemorrhage. J Obstet Gynaecol Br. Empire 1939; 46: 848-856.

[11] Onah HE, Ugona MC. An Audit of hysterectomies in Enugu, Nigeria. Trop J Obstet Gynaecol 2004; 21:58-60.

[12] Ocheke AN, Ekwempu CC, Musa J. Under utilization of vaginal hysterectomy and its impact on residency training. West Afr J Med 2009; 28(5)323-326.

[13] Harris MB, Olive DL. Changing hysterectomy patterns after introduction of laparoscopically-assisted vaginal hysterectomy. Obstet Gynecol.1994:171:340-343.

[14] Orji EO, Ndububa VI. Elective Hysterectomy in Obafemi Awolowo University Teaching Hospital Complex. Ile-Ife. Sahel Med J 2002; 5(2):95-98.

[15] Onwuhafua PI, Oguntayo A, Adesiyun G, Obineche I, Akuse JT. Audit of hysterectomies in a group of Private hospitals in Kaduna City Northern Nigeria. Trop J Obstet Gynaecol 2005; 22(1):16-20.

[16] Onah HE, Ezegwui HU. Increasing the use of the vaginal route for hysterectomy in Nigerians: a critical appraisal. J Coll Med 2002; 7:13-15.

[17] Farguhar CM, Steiner CA. Hysterectomy rates in the United States 1900-1997. Obstet Gynaecol. 2002;99: 229-234.

[18] David-Montefiore E, Rouzier R, Chapron C, Darai E. Surgical routes and complications of hysterectomy for benign disorders: a prospective observational study in French University Hospitals. Hum Reprod 2007; 22:260-265.

[19] Yusuf F, Siedlecky S. Hysterectomy and endometrial ablation in New South Wales, 1981 to 1994-1995. Aust NZJ Obstet Gynaecol 1997; 37: 212-216.

[20] Sobande AA, Eskander M, Archibong EI. Elective hysterectomy: A clinicopathological review from Abha catchment area of Saudi Arabia. WAJM 2005; 24:31-35.

[21] Obiechina NJ, Ugboaja JO, Onyegbule OA, Eleje GU. Vaginal hysterectomy in a Nigerian tertiary health facility. Niger J Med 2010; 19(3):324-325.

[22] Kovac SR. Transvaginal hysterectomy: rational and surgical approach. Eur J Obstet Gynecol Reprod Biol 2005; 120:232-233.

[23] Kjerulff KH, Guzinski GM, Langenberg PW, et-al. Hysterctomy and race. Obstet Gynecol 1993; 82:757.

[24] Pratt JH, Daikoku NH: Obesity and vaginal hysterectomy J. Reprod Med 1990; 35:945.

[25] Pitkin RM: vaginal hysterectomy in obese women. Obstet Gynecol 1977; 49:567.

[26] Bachmann GA. Hysterectomy. A critical review. J Reprod Med 1990; 35: 835-862.

[27] Ogunniyi SO, Fasubaa OB. Uterine fibromyoma in Ilesha, Nigeria. Nig Med Practitioner 1990; 19(6): 93-95.

[28] Osinusi BO. Uterine Fibroids in Nigerian Women. Dokita 1972; 7: 30-32.

[29] Emembolu JO. Uterine fibromyomata: presentation and management in Northern Nigeria. Int J Gynecol Obstet 1987; 25: 413-416.

[30] Barrier BF, Thompson AB, McCullough MW, Occhino JA. A novel and inexpensive vaginal hysterectomy stimulator. Simul Healthc 2012; 7(6): 374-379.

[31] Yaegashi N, Kuramoto M, Nakayama C, Nakano M, Yajima A. Resident gynecologists and total hysterectomy. Tohoku J Exp Med 1996; 178:299-306.

[32] Ogunbode O. Environmental factors in the management of uterine fibroids. Trop J Obstet Gynaecol 1981; 2: 199-200.

[33] Balogun SK. Age as correlate of incidence of vesico-vaginal fistula (VVF): The Nigerian example. Issues Health Psychol 1995; 2:44-51.

[34] John ME. Psychosocial needs and perceived support of pregnant and parenting adolescents in South Eastern Nigeria. J Humanities 2000;3: 111-119.

[35] Udoma EJ, John ME, Ekanem AD, Etuk SJ. Hysterectomies amongst teenagers in Calabar, Nigeria. Tropical Doctor 2004; 34:110-112.

[36] Stovall TG, Elder RE, Ling FW: Predictors of pelvic adhesions J Reprod Med 1989; 34:345.

[37] Raymond CD, Howard TS, Stephen CA. Challenging generally accepted contraindications to vaginal hysterectomy. Am J Obstet Gynecol 2001; 184(7): 1386-1389.

[38] Nicholas DH. Vaginal versus abdominal hysterectomy. In: Stovall TG(ed). Current topics in Obstetrics and Gynaecology. 1993; pp27-33.

[39] Jones KA, Shepherd JP, Oliphant SS, Wang L, Bunker CH, Lowder JL. Trends in inpatient prolapsed procedures in the United States. 1979-2006. Am J Obstet Gynecol 2010; 202: 501.e1-7.

[40] Forsgren C, Aitman D. Risk of pelvic organ fistula in patients undergoing hysterectomy. Curr Opin Obstet Gynecol 2010; 22: 404-407.

[41] Whiteman MK, Hillis SD, Jamieson DJ, et al. Inpatient hysterectomy surveillance in the United States, 2000-2004. Am J Obstet Gynecol 2008; 198: 34.e1-7.

[42] Jeffcoate. Hysterectomy and its aftermath. In Jeffcoate's Principles of Gynaecology. Revised by Tindall VR. London: Butterworths, 1987:pp706-709.

[43] Falcone T, Walters M. Hysterectomy for benign disease. Obstet Gynecol 2008; 111:753-767.

[44] Nieboer TE, Johnson N, Lethaby A, et al. Surgical approach to hysterectomy for benign gynaecological disease. Cochrane Database Syst Rev 2009:CDOO3677.

[45] Grendy R, Walsh CA, Walsh SR, Karantanis E. Vaginal hysterectomy versus total laparoscopic hysterectomy for benign disease: a metaanalysis of randomized controlled trials. Am J Obstet Gynecol 2011; 204: 388e1-8.

[46] Benassi L, Rossi T, Kaihura CT, et al. Abdominal or vaginal hysterectomy for enlarged uteri: a randomized clinical trial. Am J Obstet Gynecol 2002; 187:1561-1565.

[47] Kawuwa MB, Mairiga AG, Audu BM. Indications and complications of hysterectomy in Maiduguri, NorthEastern Nigeria. Kanem Journal of Medical Sciences 2007; 1(1): 20-25.

[48] Bukar M, Audu BM, Yahaya UR. Hysterectomy for benign gyaecological conditions at Gombe, North Eastern Nigeria. Niger Med J 2010; 51(1): 35-38.

[49] Debodinance P. Hysterectomy for benign lesions in the north of France: Epidemiology and post operative events. J Gynecol Obstet Biol Reprod 2001; 30(2): 151-159.

[50] David ME, Rouzier R, Chapron C, Darai E. Surgical routes and complications of hysterectomy for benign disorders: a prospective observational study in French university hospitals. Hum Reprod 2007; 22(1): 260-265.

[51] Shett SS. Vaginal hysterectomy as a primary route for morbidly obese women. Acta Obstet Gynecol Scand 2010; 89(7): 971-974.