Audit of Hysterectomies in a Group of Private Hospitals in Kaduna City, Northern Nigeria

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Abstract

Background: Hysterectomy is a major surgical intervention that could lead to significant degradation of the woman if performed in unsafe institutions.
Objective: To determine the indications for hysterectomy, associated demographic factors, surgical types and associated morbidity and mortality. We also seek to promote the culture of self- auditing in clinical work in Kaduna.
Study Design, Setting and Subjects: A retrospective review of women in who record of operation was available in some Private hospitals ,in Kaduna, from January 31st, 1996 to June30, 2000.
Result: There was generally poor data keeping in most of the hospitals. There were 47recorded hysterectomies; 42(89.39%) were elective and 5(10.63%) emergency. Forty two (89.36%) were abdominal and 5(10.63%) vaginal; Obstetric indications accounted for only 4.25% of the operations. Four (8.51%) of the operations were performed in the nulliparae. Indications for hysterectomy included, Uterine fibroids 22(46.80%), DUB 7(14.89%), Genital prolapse 4(8.51%), Complications of induced abortions 3(6.38%). Consultant grade Obstetricians performed 42(89.36%) of the operations. Midline abdominal incision was the choice of access in 24(57.14%) of the operations. Only in 23(48.93%) was histological examination of specimens performed. About 30% of the women had blood transfusion and abdominal wound sepsis, primary post operation haemorrhage and fever occurred in 2.12% each. No death was associated with the operation.
Conclusion: The indications for hysterectomy are varied and the operation appears to be safe in private hospitals in Kaduna. Quality assurance could be improved by simple supply of operation registers to hospitals.

Key Words: Hysterectomy, Indications, Medical Audit, Nigeria. [Trop J Obstet Gynaecol, 2005, 22: 16-20]

Introduction

Hysterectomy is a major surgical intervention, used for treatment of a diverse of disorders in women, and is the commonest major gynaecological operation in both the UK and the US, according to Manyonda[1]. There is however, paucity of literature on this operation from private hospitals in Nigeria. Sutton[2] has adequately given a historical perspective of his major intervention in Gynaecology.

This major surgical intervention could lead to significant complications and degradation of the woman if performed in unsafe institutions. The Private sector arm of Medicare is vibrant in Kaduna and operates in partnership with the Public sector for the overall benefit of the people. The culture of self-auditing and quality assurance in Medicare is now being promoted, but there is generally poor record keeping that will enable quality assessment in many Health care facilities both in the Private and Public sectors in Nigeria.

This study therefore seeks, to promote the culture of clinical auditing in the participating hospitals by a process of Networking, for a more robust Quality assurance project in Kaduna city. Furthermore, the study will seek to determine the indications; some associated demographic factors, types and surgical techniques and associated complications of the operation in the hospitals. Interventions to improve quality assessment will be attempted.

Patients and Methods

The number of registered private hospitals/clinics (117) was obtained from the Register of the State Ministry of Health. Private hospitals and Clinics where major surgical interventions are carried out were identified through the Guild of Medical directors and Association of General Medical Practitioners by the occasions of their monthly meetings; this was done through group and individual contacts during which the objective and methodology of the study, were discussed. All the facilities were, all the same individually visited by one of the authors (P.I.O.).

The hospitals that agreed to participate were then further visited and access to patients' records and surgical registers were negotiated and obtained. The records of

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all women that had hysterectomy from January 31st, 1996 to June 30th, 2000 were reviewed for some socio-demographic and surgical data and analyzed.

Results

There were 117 registered private hospitals/ clinics in Kaduna metropolis during the study period .Twenty (17.0%) of these, did not want to participate in the audit. About 60 (61.9%) of the facilities that were willing to participate have carried out one major abdominal surgery or the other since commenced service delivery. Many of the hospitals/clinics did not keep record of surgical interventions and those that did, data was incomplete and not uniform for group assessment.

Table 1

Types of Hysterectomy

	Type of Hysterectomy	No	%
A.	Elective	42	89.36
	Emergency	5	10.63
B.	Abdominal	42	89.36
	Vaginal	5	10.63
C.	TAH	45	95.74
	Subtotal	2	4.25
D.	Obstetric Indications	2	4.25
	Gynaecological Indications	45	95.74

There were 47 hysterectomies performed in the hospitals surveyed during the period. Forty two (89.39%) of the operations were elective, while five (10.63%) were emergencies. Obstetric indications accounted for about 4% of the interventions; there were for severe bleeding at caesarean section due to major degree placenta previa and ruptured uterus. Forty two (89.36%) were abdominal and five (10.63%) vaginal hysterectomies.

Total hysterectomy was done for 45 (95.74%) and subtotal 2(4.25%) - Table 1. No hysterectomy was performed for the age group less than 20 years and the highest incidence of the operation was in the age group 40-49 years (42.55%). In about 19% of the patients age was not recorded. Four (8.51%) of the operations were performed in the nulliparae. The highest contributors were the para 1-4 group 24(51.06%). In about 15% of the patients parity was not recorded (Table 2).

Table 2

Age, Parity of Patients and Hysterectomy

Age Group	No	%
20-29	5	10.63
30-39	8	17.02
40-49	20	42.55
50 and above	5	10.63
Age not indicated	*9*	*19.14*
Parity Group	47	100.00
0	4	78.51
1-4	24	51.06
5 and above	12	25.53
Parity not indicated	*7*	*14.89*

Indications for hysterectomy included uterine fibroids 22(46.80%), dysfunctional uterine bleeding [DUB] 7(14.89%), genital prolapse 4(8.51%), cervical dysplasia and complications of induced abortions 3 (6.38%) each among others (Table 3). Forty-two (89.36%) of the operations were performed by consultants; Specialists, 2 (4.25%) and General Practice physicians 6.38% of the hysterectomies. Midline abdominal incision was the choice of access in 24(57.14%) of the abdominal operations, while Pfannenstiel, 17(40.47%) and paramedian, 1(2.38%). Thirteen (59.09%) of the operations for uterine fibroids were through the midline, and 9(40.90%) through Pfannenstiel incision. In all the emergency operations, midline access was the choice. In twelve (28.57%) cases, the hysterectomies were associated with other operations. The commonly associated operations during abdominal hysterectomy included, bilateral salpingooophorectomy 4(33.33%), unilateral oophorectomy 5(41.66%) unilateral salpingo-oophorectomy (1), repair of femoral hernia (1) and repair of colonic injury (1). Only in 23 (48.93%) of the patients was histological examination of the specimen done. Adenomyosis was diagnosed in 4 patients, squamous cell carcinoma with microinvasion in a patient operated for CIN III and papillary adenoma of the endometrium in the other 4 patients. Morbidity following hysterectomy included blood transfusion 14(29.78%); wound sepsis, post-operative haemorrhage and fever (2.1% each). Only 3 (13.63%) of the patients operated for uterine fibroids were transfused with blood. Four (57.14%) of those operated for DUB and all the three patients operated for complications of abortion were transfused. No death was associated with hysterectomy during the study period.

Table 3

Indications for Hysterectomy

Indications	No	%
Obstetric:		
Obstetric Haemorrhage	1	2.12
Ruptured uterus	1	2.12
Gynaecological:		
Uterine fibroids	22	46.80
DUB	7	14.89
UV Prolapse	4	8.51
Cervical Dysplasia	3	6.38
Compl of induced abortions	3	6.38
Endometrial carcinoma	2	4.25
Ovarian Tumour	2	4.25
Adenomyosis	1	2.12
Chronic pelvic pain	1	2.12
Total	**47**	**100**

Discussion

The number of hysterectomies in Private hospitals seen in this study, appear rather small for a city like Kaduna with a population of over two million people, when compared with that reported by Ezem and Otubu[3] working in Zaria , Aboyeji and Ijaiya in Ilorin[4] and Adelusola and Oguniyi[5] in Ile Ife, all working in public tertiary institutions in Nigeria. This is even a far cry from that reported from other parts of the world [6]. The reasons we believe, may not be unrelated to, the general reluctance of the Nigerian woman to let go of her uterus unless in very critical situations, and also the civil crisis that attracted significant demographic changes during the period of the study as quite a number of families relocated away from Kaduna. Further more, the skill of the care providers and most importantly the issue of cost of service in the private hospitals may have been the limiting factor to the performance of the operations in private hospitals among other reasons. A study of hysterectomies in public hospitals in the city, especially, Ahmadu Bello University teaching hospital will be illuminating.

The high incidence of elective hysterectomy in this study, is very much like findings from other reports [7,8]. This is not surprising because, most conditions that require hysterectomy are often long standing diseases, unlike the life threatening situations that require emergency intervention like ruptured uterus [9,10] and complications of abortions [11,12]. Further more access to most private hospitals is grossly discriminatory in Kaduna based on the ability to pay for services and therefore selective of women of higher social class; this class of women are also the ones that are less likely to have complications that lead to emergency operations.

The age groups of the patients were very similar to the findings of others [3,13,14,15]. The biologic roles of procreation and menstruation have very passionate appeals in the Nigerian woman such that hysterectomy in the nulliparous or the very young is often associated with violent psychological aftermaths; perhaps that is even one of the reasons why Gynaecologists practicing in Nigeria will hesitate to perform the operation for banal indications like in the developed world, since peoples have different values and aspirations. Knowledge and advances in Biomedical Science in the millennium past, seem to have come to the rescue of those in whom, though with tubal- factor infertility and fibroids, the uterus could be spared with a view to offering them the benefits of Assisted Reproductive Technology.

The indications for hysterectomy as seen in this study are varied. The commonest indication for the operation is uterine fibroids, which is very similar to the findings of other workers [3,5,6,15,16,17,18]. This contrasts however with the findings of Santha Ram and Murthy [14] and Mareshi et al [19], where DUB assumed significant prominence. The use of hysterectomy as treatment for uterine fibroids has been fully discussed by Carlson [20] Very important in Gynaecological practice in Nigeria is the issue of unsafe abortions that has become a significant cause for the ever rising maternal mortality and morbidity in the country [21,22]. Complications of induced abortions were the indication for hysterectomy in three teenagers as such. The choice of route of surgery would appear to depend on the indication for the operation, the facilities of the hospital, skill and preference of the surgeon and also the esthetic desire of the patient. In this study, most of the operations were abdominal similar to Ezem and Otubu's [3] findings from a Government operated tertiary hospital in Kaduna state of Nigeria, about two decades ago.

The use of the vaginal route for the operation was much lower than reported by Orji [18] and Dare [13] working in Nigeria and Cava [23] and Porges [24] from the USA. What is responsible for this disparity with findings of other workers will have to do with finding out, in the first instance, whether or not the incidence of genital prolapse is lower in Kaduna than in the other places; and also the situation of minimal invasive techniques for the operation in Nigeria as a whole. However, Otubu and Ezem [25] have once alluded to the low incidence of genital

prolapse in their Zaria study, while there has been no report of use of minimal invasive operative techniques for this type of surgery in Nigeria, to the knowledge of the authors. One would rather posit that one of the reasons may be that the cost of such operations in the private hospitals will be rather high with the kind of regard to our mind, the procedure evokes, rightly or wrongly, among patients and providers alike. The other reason may be that of the availability of surgeons skilled in this operation, especially the now in vogue assisted laparoscopic techniques [26]of the developed world in the private sector. Ezem and Otubu [3], understandably, and Santha[14] did not report the use of vaginal route for the operation in their series.

The type of abdominal incision for hysterectomy is varied as the indication, but the most common in this study was the midline incision. A major factor in this regard was the size of uterine fibroids which was the commonest indication for the operation. For technical reasons large fibroids are better approached through midline incisions. Moreover, choice of incisions are also influenced by the pathology in question, anticipated difficulties, desired speed of access, dexterity of surgeon, presence of previous scar and also the esthetic desire of the patient and amenities available to the surgeon.

It is a welcome development that surgeons of specialist and consultant grades, performed the bulk of the operations in this study, similar to that reported by Mareshi et al[19] from the UK. This is not surprising though, since, they indeed managed most of the hospitals that provided data for this study. Indications for the operations would appear more likely to be valid and the complications less, when specialists perform the operation. The issue of quality assurance for this operation though, will be subject for future investigation. The high incidence of associated surgery in this study calls for full understanding of the vagaries of disease processes and familiarity with general surgical procedures. The inclusion of rotation in General surgery and Urology in Postgraduate training for the trainee gynaecologist, is therefore welcome.

The complication rate of the operation appears low as in other studies [6,7,8] and the most important morbidity was blood transfusion. The 30% incidence of blood transfusion is much lower than the 64% reported by Ezem and Otubu [3] and Langdana et al [27]. Nevertheless, during their time, the hazards of blood transfusion would appear to be less frightening than what we know now, that HIV is ravaging the world.Most clinicians nowadays, therefore, would exercise more restraint with blood transfusion for obvious reasons. It is however desirable that blood be within easy reach in case the unexpected happens and the need for it arises. Moreover, early presentation of patient, good patient preparation, appropriate surgical techniques could significantly reduce blood loss during surgery.

The incidence of abdominal wound sepsis is lower than figures reported by other Workers[3,13,14,28].This is more so, since most of the private hospitals practice the use of prophylactic antibiotherapy which has been associated with reduction in wound sepsis[29] However, condition of patient, surgical environment and technique are some of the other factors that influence wound morbidity. It is salutary that no death was associated with the operation in these hospitals. Worrisome is the finding that it was only in about 48% of the cases was specimens sent for histological examination. This omission could lead to serious consequences for the patient, when a malignant lesion is thus neglected. The factor operating here is most likely that of cost reduction. No matter how this is viewed, it could lead to undesirable medico-legal probes for the clinicians, if not now but in the nearest future. The old teaching that requires every surgical specimen from the human body sent for histology examination still remains very valid even today.

The indications for hysterectomy are varied and the operation appears to be safe in private hospitals in Kaduna. There is however, the need to promote quality assurance in surgical practice by the simple intervention supply of good computer- friendly formatted surgical registers, to boost the quality assessment component of Quality assurance. Such registers have been provided to most of the Kaduna Clinics at subsidized rate by a working group in Kaduna- *National Maternity Data Management Project Group*. Networking for a common data pool in the City should be encouraged, as is the case in the developed world and no doubt, the Guild of Medical Directors and the Association of General Practice physicians are in very good positions to give the desired leadership in that direction. A workshop on the fundamentals of Quality of care, will further improve cooperation among Providers in Kaduna.

References

1. Mayonda I. Total or subtotal abdominal hysterectomy for benign gynaecological disease. *Review in Gynaecological Practice*, 2003; 3: 26-31.
2. Sutton C. Hysterectomy: a historical perspective. *Baillieres Clin Obstet Gynaecol*, 1997; 11(1): 1-22.
3. Ezem BU and Otubu JA. Hysterectomy in the Hausa/Fulani Population in Nigeria. *Int J Gynaecol Obstet*, 1981; 19: 145-148.
4. Aboyeji AP and Ijaiya MA. Uterine Fibroids:A Ten-Year Clinical Review in Ilorin,-Nigeria. *Nig J Med*, 2002; 11(1): 16-19.

5. Adelusola KA and Ogunniyi SO. Hysterectomies: trends, indications and risks. *Am J Obstet Gynaecol*, 1979; 134: 431-436.
6. Carlson KJ, Nichols DH, Schiff I. Indications for Hysterectomy. *N Eng J Med*, 1993; 328: 856-860.
7. Wongsa P. Elective hysterectomy- trend at Angthong Hospital. *J Med Assoc Thai*, 1994; 77(7): 384-7.
8. Chan YG, Ho HK, Chen CY. Abdominal hysterectomy: indications and complications. *Singapore Med J*, 1993; 34(4): 237-40.
9. Onwuhafua PI, Onwuhafua A, Omekara D, Ibrahim R. Ruptured Uterus in Kaduna, Nigeria- a six year review. *J Obstet Gynaecol* 1998; 419-423.
10. Badeea Teaching Hospital in North Jordan. *J Obstet Gynaecol Res*, 1999; 25(3): 193-195.
11. Adetoro OO. A15 year study of Illegally Induced Abortion at Ilorin, Nigeria. *Int J Gynecol Obstet*, 1989; 29: 65-72.
12. Konje J. and Obisesan KA. Septic Abortion (A Five- Year Review). *Trop J Obstet Gynaecol*, 1991; 9(2): 38-39.
13. Dare FO. and Ademowore AS. Elective Hysterectomy in Ife University Teaching Hospital Complex- A five- year Review. *Niger Med J*, 1989; 193: 130-136.
14. Santha Ram NV. and Murthy NVA. Abdominal hysterectomies at area hospital Point Fortin, Trinidad, West Indies. *Int J Gynaecol Obstet*, 1989; 28: 137-141.
15. National Center for Health Statistics: Surgical operations in short stay hospitals, United States, 1978. Vital Health Stat Ser, 1982; 13: 61.
16. Amirikia H. and Evans TN. Ten year review of hysterectomies; trends, indications and risks. *Am J Obstet Gynaecol.* 1979; 134: 431-436.
17. Vessey MP., Villard- Mackintosh L., Keta M., Coulter A, Yeates I. The epidemiology of Hysterectomy. Findings in a large Cohort Study. *Br J Obstet Gynaecol*, 1992; 99: 402-407.
18. Orji EO. and Ndububa VI. Elective Hysterectomy in Obafemi Awolowo University Teaching Hospital Complex, Ile Ife. *Sahel Med J.* 2002; 5(2): 95-98.
19. Maresh MJA, Metcalfe MA, McPherson K, Overton C, Hall V, Hargreaves J *et al.* The VALUE national hysterectomy Study: description of the patients and their surgery. Br J Obstet Gynaecol, 2002; 109: 302-312.
20. Carlson KJ. Outcomes of hysterectomy. *Clin Obstet Gynaecol*, 1997; 40(4): 939-946.
21. News desk. Abortion debates in Nigeria. *African Health*, 1993; 14(3): 3
22. Okonofua FE., Onwudiegwu U. Odunsi OA. Illegal induced Abortion: A Study of 74 cases in Ile-Ife, Nigeria. *Trop Doc*, 1992; 22: 75-78.
23. Cava EF. Hysterectomy in a community hospital. *Am J Obstet Gynaecol* 1975; 122: 434-438.
24. Porges RF. Changing Indications for Vaginal Hysterectomy. Am J Obstet Gynaecol 1980; 136: 153-158.
25. Otubu JA, Ezem BU. Genital prolapse in the Hausa/Fulani of Northern Nigeria. *E. Afr Med J*, 1992; 59: 605-609.
26. Bernstein P, Fenton P, Walla K, Platt LD. Introduction of laparoscopically-assisted vaginal hysterectomy in a private teaching community hospital. *J Am Assoc Gynecol Laparosc*, 1994; (4): 351-6.
27. Langdana M., Geary W., Keane F. Peripartum hysterectomy in the 1990s: any new lessons. *J Obstet Gynaecol.* 2001; 21(2): 121-123.
28. Dickler RC, Greenspans JR, Strauss LT. Complications of Abdominal and Vaginal Hysterectomy among women of reproductive age in the United States. *Am J Obstet Gynecol*, 1982; 144: 841-848.
29. Okonofua FE. *The use of antibiotics in Obstetrics and Gynaecology. Trop J Obstet Gynaecol* 1995; 12 (1) suppl: 42-47.