



Original Research Article

Audit of hysterectomy in a private missionary hospital an 8 Year retrospective study

Received 25 February, 2020

Revised 23 May, 2020

Accepted 12 June, 2020

Published 6 July, 2020

**¹*Olusanya Abiodun,
²Oluwadara Ola
and
¹Omobilaji Oguntoyinbo**

¹Department of Obstetrics and Gynaecology, Sacred Heart Hospital, Iantoro, Abeokuta, postcode 110001, Nigeria.

²Department of Family Medicine, Sacred Heart Hospital, Iantoro, Abeokuta, postcode 110001, Nigeria.

*Corresponding Author Email: biodunolusanya@yahoo.com

Hysterectomy is a major gynaecological procedure worldwide after caesarean section. It is the commonest gynaecological procedure with millions performed in perimenopausal and postmenopausal women. The objectives of this study were to determine the incidence, the indications, factors that influenced the acceptance of the procedure by the patients, and types of hysterectomy carried out in Sacred Heart Hospital. The study is a retrospective study between January 2010 and December 2017; out of the 7,772 major obstetrics and gynaecological procedures carried out 411 were hysterectomy thus making hysterectomy rate to be 5.3%. Out of the 411 hysterectomies, 233(56.7%) were total abdominal hysterectomy, 162(39.4%) were subtotal hysterectomy, and vaginal hysterectomy was 3.9%(16). Uterine fibroid associated with symptoms was the major gynaecological indication for total abdominal hysterectomy in this study while recalcitrant uterine atony and extensive uterine rupture were the major obstetric indications for subtotal hysterectomy in this hospital. Level of education of the patients reviewed played a significant role in the acceptance of hysterectomy as a form of treatment for uterine conditions.

Keywords: hysterectomy, total, subtotal, vaginal, laparoscopy, atony, peripartum.

INTRODUCTION

Hysterectomy is the second most frequently performed surgical procedures on women all over the world next only to caesarean section (Pandey et al.,2014;Wu et al.,2007;Spilsbury et al.,2008). Being the commonest gynaecological procedure with millions performed in women in the perimenopausal and post-menopausal period (Spilsbury et al., 2008; Majeed et al., 2013; Amarin et al., 2012). This is the removal of the uterus with or without its adnexa. It can either be total or subtotal. It is described as total when it is removed together with the cervix while it is described as being subtotal if the cervix is left behind. The route of surgery is also used to describe it; it could be through the abdomen, vagina, laparoscopy, or laparoscopic-assisted vaginal hysterectomy. The following factors play a very significant role in determining the choice of route and type of hysterectomy offered a patient: the indication for

the procedure, haemodynamic state of the patient, and the skill or the experience of the surgeon.

Indications for hysterectomy vary from benign to malignancies of the female genital tract (Medhi et al.,2016). The five most common gynaecological indications for hysterectomy include uterine fibroids, abnormal uterine bleeding, pelvic organ prolapse, and premalignant and malignant conditions of the uterus, cervix, tubes or ovaries; while uterine atony constitutes the major obstetric indication that is not amenable to surgical and medical conservative management(Colmon et al.,2016). Rates of hysterectomy vary with geographic area, patient's expectations, training, and practice patterns of the local surgeons (Amarin et al.,2012). The rate ranges from 6.1 to 8.6 per 1000 women of all ages (Al Kadri et al., 2002). The lifetime risk of hysterectomy ranges from 20% to 35%

(Sait et al., 2008; Spilsbury et al., 2006; MacKenzie et al., 2004).

The emergence of effective medical and conservative treatment for benign uterine conditions is now casting doubts on the justification of hysterectomy (Pandey et al., 2014) with its well-known possibly associated significant risk of morbidity (Spilsbury et al., 2008). It is associated with intraoperative and postoperative complications just like any other surgery. Rates of various complications with hysterectomy have been reported in the range from 0.5% to 43% (Pandey et al., 2014; Hadi et al., 2014).

Though hysterectomy is the commonest gynaecological surgery closely following caesarean section (Pandey et al., 2014; Wu et al., 2007; Spilsbury et al., 2008), it can also be done peripartum to save the life of a dying woman as a result of haemorrhage that conservative procedures have failed to control; though peripartum hysterectomy is a tragedy for a young and fertile woman as it deprives her the chance of having more children (Colmon et al., 2016).

The route of carrying out hysterectomy include abdominal, laparoscopy, and vaginal approach. The vaginal and laparoscopic hysterectomies are associated with fewer complications (Onah et al., 2004; Jones, 2003). Hysterectomy can also be total or subtotal, the incidence of cancer of the stump following subtotal hysterectomy is 0.3% (Colmon et al., 2016). The presence of cancer within the stump with the absence of the uterine body may make it spread more rapidly to the contiguous structures like the bladder and the rectum (Reich et al., 1989; Chang et al., 2005; Ahmed et al., 2005), hence, the woman is advised not to exit the cervical screen program (Joseph et al., 2005).

Objectives

To determine the incidence and indications for hysterectomy in Sacred Heart Hospital Lantoro

To determine the different types of hysterectomy done in the hospital

To determine the factors that influenced hysterectomy as a treatment option

MATERIALS AND METHODS

This study was a retrospective study of all hysterectomies carried in the obstetrics and gynaecology unit of Sacred Heart Hospital, Lantoro, Abeokuta between January 2010 and December 2017. Records of all patients that were admitted and had hysterectomy during this period were extracted from the case files retrieved from the Medical Health Record of the hospital. The hospital is a 300 bedded private missionary hospital that serves Abeokuta and its environ. All patients that had hysterectomy during the period of study were included irrespective of the indication and route of surgery. Other information extracted from the patients' case notes included age, parity, symptomatology, educational status, route and type of hysterectomy, estimated blood loss, duration of hospital stay, choice of

anaesthesia, intra- and postoperative complications.

This study was motivated to contribute to existing research in Nigeria as audits of hysterectomy are available from public institutions and none from private institutions like Sacred Heart Hospital. SPSS 21 was used in the analysis of results.

RESULTS

Four hundred and eleven folders were retrieved from the medical health records of the hospital. The total number of hysterectomies carried out during the period of study; January 2010 to December 2017 in the Obstetrics and Gynaecology unit was 411. During the period under review 7,772 major obstetrics and gynaecological surgical procedures were carried in the unit; out of which 411 were hysterectomy thus making the hysterectomy rate to be 5.3%. Information about the socio-demographic characteristics of the patients was extracted as shown in Table 1. As shown in Table 2 out of the 411 hysterectomies done 233(56.7%) were total abdominal hysterectomy, 162(39.4%) were subtotal hysterectomy, and the vaginal hysterectomy was 3.9%(16). Table 3 shows the various indications identified in the patients reviewed; the commonest indication was symptomatic uterine fibroid, this constituted 56.7% followed by uterine atony 85(20.7%) and uterine rupture 38(9.2%) respectively; the least indications were categorised as other obstetric indications that included unresolved postpartum endometritis, recalcitrant secondary postpartum haemorrhage, and uterine necrosis following prolonged obstructed labour. Therefore, peripartum hysterectomy accounted for 127(30.9%) out of the 411 hysterectomies that were done during the period under review. As shown in Table 4; a significant statistical relationship was found between the choice of anaesthesia and the amount of blood loss during surgery with a p-value of 0.000. There was a statistically significant relationship between the level of education of the patients whose case notes were reviewed and acceptance of hysterectomy as a form of treatment with a p-value of 0.000 as depicted in Table 5. The type of hysterectomy had no significant relationship with the duration of the hospital stay as depicted in Table 6.

DISCUSSION

During the period reviewed 7,772 major obstetrical and gynaecological surgeries were carried out in Sacred Heart Hospital, 411 were hysterectomies. This gave an incidence rate of 5.3%. This is similar to the finding of the study carried out in Kano by Ahmed et al (Ahmed et al., 2005) but lower than the findings in most public hospital institutions worldwide (Oyewoye, 1996; Yousaf et al., 2016; Siwatch et al., 2012). The reasons for this low value could not be far fetched, the hospital is a private missionary hospital so the cost of surgery could account for why people generally

Table 1. Sociodemographic character of subjects

Age range	N = 411	Percentage (%)
≤20	1	0.1
20-24	14	3.4
25-29	10	2.4
30-34	41	10.0
35-39	59	14.4
≥40	286	69.6
Marital status	N=411	Percentage (%)
Single	15	3.6
Married	386	93.9
Divorced	5	1.2
Widowed	5	1.2
Educational level	N=411	Percentage (%)
No education	10	2.4
Primary	90	21.9
Secondary	200	48.7
Tertiary	111	27.0
Occupation	N=411	Percentage (%)
Housewife	35	8.5
Self-employed	252	61.3
Civil servant	104	25.3
Others	20	4.9

Table 2. Types of Hysterectomy

Type of hysterectomy	Frequency	Percentage (%)
Total abdominal hysterectomy	233	56.7
Subtotal hysterectomy	162	39.4
Vaginal hysterectomy	16	3.9
Total	411	100

Table 3. Indications for hysterectomy

Symptoms	Frequency	Percentage (%)
Abdominal swelling	27	6.6
Menstrual disorder	8	1.9
Uterine fibroid	233	56.7
Uterovaginal prolapse	16	3.9
Uterine atony	85	20.7
Uterine rupture	38	9.2
Other obstetric complications	4	1.0
Total	411	100

Table 4. Choice of anaesthesia and estimated blood loss

Choice of anaesthesia	Estimated blood loss					Total	x²
	<1000ml	<2000ml	<3000ml	<4000ml	≥5000ml		
G.A	54	49	20	2	8	133	
S. A	238	21	16	3	0	278	0.000
Total	292	70	36	5	8	411	

shy away from an establishment like the hospital in addition to fear for surgery. The age group in which hysterectomy was most associated with was age group

40years and above, this finding was similar to the finding by Ahmed et al in Kano (Ahmed et al.,2005). The commonest indication for hysterectomy was uterine fibroid

Table 5. Educational status and hysterectomy

	Type of hysterectomy			X ²
	TAH	Subtotal hysterectomy	Vaginal hysterectomy	
No education	1	9	0	0.000
Primary	18	56	8	
Secondary	87	80	8	
Tertiary	127	17	0	
Total	233	162	16	

Table 6. Type of hysterectomy and duration of hospital stay

Hysterectomy	Duration of hospital stay			x ²
	≤4days	>4days	Total	
TAH	146	87	233	0.908
Subtotal hysterectomy	98	64	162	
Vaginal hysterectomy	10	6	16	
Total	254	157	411	

associated with menstrual disorder. Most of the subtotal hysterectomy carried were done during the peripartum period, this was not a surprise since this procedure is faster, often time the patient is haemodynamically unstable, and the essence of this type of surgery is to save the life of the parturient. However one should bear in mind that those patients that had a subtotal hysterectomy are not completely free from the risk of cervical cancer considering our environment where there is no designed program on routine screening for cancer of the cervix. Patients' acceptance of hysterectomy is largely influenced by their level of education as depicted in this review.

Conclusion

Hysterectomy is a commonly performed surgery worldwide and noted to be commonest among women aged 40 years and above. Its low incidence in the hospital probably must have been influenced by cost and level of education. The most frequent indication being uterine fibroids associated with menstrual disorder. The education level of patients has a significant influence on the acceptance of hysterectomy as a treatment option. Peripartum hysterectomy though a great obstetric tragedy that can befall any woman of reproductive age could be life-saving especially if all conservative measures proved abortive with the woman's life in jeopardy; this option should not be the first choice until all conservative options have been exhausted.

Acknowledgement

We would like to acknowledge the co-operation from the health record office for granting us free access to case notes of patients studied

Constraint

The only constraint encountered was inadequate documentation in the case notes of the patients reviewed.

Conflict of Interests

The authors declare that there is no conflict of interests regarding the publication of the paper.

REFERENCE

- Ahmed ZD, Taiwo N (2005). Indications and Outcome of Gynaecological Hysterectomy at Aminu Kano Teaching Hospital, Kano: A 5-Year Review. *Open J. Obst. Gynecol.* 5:298-304.
- Al Kadri HM, Al Burki HA, Saleh A (2002). Short and long term complications of Abdominal and Vaginal Hysterectomy for the disease. *Saudi Med. J.* 23(7):806-815.
- Amarin V, Naji N, Quran F, Al-Fayaz N (2012). Indications and Complications of total abdominal hysterectomy for benign diseases. *JR.Med. Sci.* 19(3):50-52.
- Chang WC, Huang SC, Sheu BC, Chen CI, Torng PI, Hsu WC, Chang DY (2005). Transvaginal Hysterectomy or Laparoscopically Assisted Vaginal Hysterectomy for Nonprolapsed Uteri. *Obst. Gynecol.* 106:321-326.
- Colmon LB, Krees L, Laughoff-Ross J (2016). NOSS study group - Potentially Avoidable Peripartum Hysterectomies in Denmark: A population Based Clinical Audit. *PLoS ONE* 11(8):e0161302, [Soi:10.1371/journal.pone.0161302](https://doi.org/10.1371/journal.pone.0161302).
- Hadi RA, Khan B, Annar I (2014). An Audit of Abdominal Hysterectomy. *J. Med.Sci (Peshannar Print)* 22(4):152-154.
- Jones HW (2003). Hysterectomy in Telindes' Operative

- Gynaecology. J.A Rock, and Jones, H.W., Eds., 9th Edition, Lippincott Williams and Wilkins, 799-828.
- Joseph DS, Richard MKA (2005).Hysterectomy for Uterine Fibroid in Nulliparae at Korlu BU Teaching Hospital Ghana. *Trop J Obstet.Gynaecol.* 8:125-128.
- Lee N, Dicker R, Rubin G, Ory H (1984). Confirmation of the preoperative diagnoses for hysterectomy. *Am. J. Obs. Gyn.* 150(3):283-287.
- MacKenzie IZ, Naish C, Rees M, Marek J (2004).1170 consecutive hysterectomies: indications and pathology.*J. Br. Menopause Soc.* 10(3):108-112.
- Majeed T, Adman R, Mahmood Z, Mahmood H (2013).Audit of Gynaecological Hysterectomies. *Pak J Med Health Sci.* 7(3):684-7.12.
- Medhi P, Dowereh S, Borgohain D (2016). A histopathological audit of hysterectomy: experience at a tertiary teaching hospital. *Int. J. Contemporary Med. Res.* 3(4):1226-1228.
- Onah HE, Ugoma NC (2004). An Audit of Vaginal Hysterectomies in Enugu, Nigeria. *Trop J. Obs. & Gyn* 21:58-60.
- Oyewoye OA (1996). Elective Hysterectomy at Ilorin, Nigeria—4 Years Review, *J. Obst. Gynaecol.*, 18: 72-75.
- Pandey D, Sehgal K, Saxena A, Hebbar S, Nambiar J, Bhat R (2014). An audit of indications, complications, and justification of hysterectomies at a teaching hospital in India. *Int. J. Repro. Med.* Article ID279273, 1-6.
- Reich H, DeCaprio J, McGlynn J (1989).Laparoscopic Hysterectomy. *J. Gynecol. Surgery.* 5: 213- 216.
- Sait K, Alkhatabi M, Boker A, Alhashami J (2008).Hysterectomy for benign conditions in a university hospital in Saudi Arabia.*Ann Saudi Med* 28(4):282-286.
- Siwatch S, Kundu R, Mohan H, Huria A (2012).Histopathologic audit of hysterectomy specimens in a tertiary care hospital. *Sri Lanka J.Obst.Gynecol.* 34:155-158.
- Spilsbury K, Hammond I, Bulsara M, Semmens J (2008). Morbidity outcomes of 78,577 hysterectomies for benign reasons over 23 years. *Brit. J. Obstet. Gynaecol.* 115:1473-1483.
- Spilsbury K, Semmens FB, Hammond I, Bolck A (2006). Persistent high rates of hysterectomy in Western Australia: a population-based study of 83,000 procedures over 23years. *Brit. J. Obstet. Gynaecol.* 113(7):804-809.
- Wu JM, Wechter ME, Geller EJ, NguyenTV, Visco AG (2007). Hysterectomy rates in the United States. *Obs.Gyn.*110:1091-1095.
- Yousaf F, Tabassan S,Rasul N (2016).Gynaecological Hysterectomies, Can Audit changer the Clinical Practice? *An Audit. Prof. Med. J* 23(6):746-749.