OPEN ACCESS

Scholars International Journal of Obstetrics and Gynecology

Abbreviated Key Title: Sch Int J Obstet Gynec
ISSN 2616-8235 (Print) |ISSN 2617-3492 (Online)
Scholars Middle East Publishers, Dubai, United Arab Emirates
Journal homepage: https://saudijournals.com

Original Research Article

Clinical Audit of Hysterectomy in Rasheed Shekoni Federal University Teaching Hospital Dutse, North-West Nigeria

Abdullahi Abba Habib[1*], Mubarak Abdulkareem Jabbo[2], Abdulrahman Abubakar Tahir[3]

[1]Department of Obstetrics and Gynaecology, Federal University Dutse/Rasheed Shekoni Federal University Teaching Hospital, Dutse, Nigeria
[2]Department of Obstetrics and Gynaecology, 261 Nigerian Airforce Reference Hospital Bauchi, Nigeria
[3]Department of Surgery, Federal University Dutse/ Rasheed Shekoni Federal University Teaching Hospital, Dutse, Nigeria

DOI: 10.36348/sijog.2023.v06i11.001 | **Received:** 20.09.2023 | **Accepted:** 27.10.2023 | **Published:** 03.11.2023

***Corresponding author:** Abdullahi Abba Habib
Department of Obstetrics and Gynaecology, Federal University Dutse/Rasheed Shekoni Federal University Teaching Hospital, Dutse, Nigeria

Abstract

Background: Hysterectomy is a major and common gynecological procedure that involves the removal of the uterus for benign or malignant indications. The rate of hysterectomy varies from one region to another. ***Objective*:** To determine the prevalence, indications and clinical outcome of hysterectomy at Rasheed Shekoni Federal University Teaching Hospital. ***Materials and methods*:** The study was a 3-year retrospective review of hysterectomies, carried out between 1st July 2020 and 31st June 2023. Data analysis was carried out using IBM SPSS version 26. Measured variables were expressed in percentage. Test for association was done using chi-square, setting P-value at <0.05. ***Results*:** A total of 56 hysterectomies were performed out of a total of 232 gynecological surgeries, giving a rate of 24.14%. The mean age was 51.72±12.2 years. The mean parity was 5.28±3.3. The rate of hysterectomy was highest (34.0%) among women aged 40 – 49 years. The commonest (29.8%) procedure was vaginal hysterectomy. The commonest (29.8%) indication for hysterectomy was utero-vaginal prolapse. The mean blood unit transfused was 1.2±1.2 units. The mean post-operative admission was 5.23± 2.2 days. ***Conclusion*:** Pelvic organ prolapse is the leading indication for hysterectomy and vaginal hysterectomy is the most common type of hysterectomy performed.

Keywords: Hysterectomy, Prevalence, Dutse, RSFUTH.

Copyright © 2023 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution **4.0 International License (CC BY-NC 4.0)** which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Hysterectomy is a common major surgical procedure that involves the removal of the uterus [1-3]. Approximately 600,000 hysterectomies are performed annually in the United States of America, however rates vary from region to region [2]. In Nigeria hysterectomy accounts for 5.1% - 27.9% of all gynecological operations [4-8].

The approach to hysterectomy could be abdominal, vaginal or laparoscopic [2, 3]. Hysterectomy may be total when it involves the removal of the uterus and cervix; and sub-total when the cervix is preserved. Hysterectomy is said to be radical when it involves not only the removal of uterus and cervix, but also sorrounding lymph nodes, omentum, part of the vagina or surrounding tissue [2, 3, 5].

The indications for hysterectomy include symptomatic uterine fibroid, pelvic organ prolapse, adenomyosis, cervical intraepithelial neoplasia, atypical endometrial hyperplasia, endometrial cancer, cervical cancer and ovarian cancer [1-3]. The commonest indication in most Nigerian centers is symptomatic uterine fibroid [4-8]. Hysterectomy is usually a life-saving procedure in obstetric emergencies like post-partum hemorrhage and uterine rupture [5].

As with all surgical procedures, hysterectomy is not devoid of complications [1]. Some of these include injury to blood vessels and hemorrhage, infection, injury to adjoining structures such as bladder ureter, bowel and

vault prolapse [1, 2]. The aim of the study was to determine the prevalence, indications and clinical outcome of hysterectomy in Rasheed Shekoni federal university teaching hospital (RSFUTH), Dutse.

MATERIAL AND METHOD

The study was a 3-year retrospective review of hysterectomies, carried out between 1st July 2020 and 31st June 2023 in the department of obstetrics and gynecology of Rasheed Shekoni federa university teaching hospital. RSFUTH is one of the tertiary health facilities in the state. It serves as a referral center for patients within Jigawa and neighbouring states.

The study participants were all the patients who had hysterectomy during the period under review. The case files of the participants were retrieved from the record department. Relevant information obtained from the files included socio-demographic data, indication, type of surgery, anesthesia, blood transfusion and length of hospital admission.

The data obtained was checked for completeness and accuracy. Data analysis was carried out using IBM statistical package for social sciences (SPSS) version 26. Measured variables were expressed in percentage. Test for association was done using chi-square non-parametric test, setting P-value at <0.05. Ethical clearance for the study was obtained from the Ethical committee of Rasheed Shekoni Federal University Teaching Hospital, Dutse.

RESULTS

During the study period, a total of 56 hysterectomies were performed out of a total of 232 gynecological surgeries, giving a rate of 24.14%. However only 47 cases were retrieved and analyzed. The mean age of the women was 51.72±12.2 years and the age range was 33 – 81 years. The rate of hysterectomy was highest (34.0%) among women aged 40 – 49 years. Most (59.6%) of the women were grand-multiparous. The mean parity was 5.28±3.3 and parity ranged from Para 0 to Para 12 as shown in Table 1.

Table 1: Socio-demographic Characteristics

Variables	Frequency (n)	Percentage (%)
Age(years)		
Mean age = 51.72 ± 12.2		
<30	0	0
30-39	6	12.8
40-49	16	34.0
50-59	10	21.3
60-69	8	17.0
≥ 70	7	14.9
Parity		
Mean parity = 5.28 ± 3.3		
0	5	10.6
1-4	14	29.8
≥ 5	28	59.6

As shown in Table 2, Majority (85.1%) of the hysterectomies were elective. Most (70.7%) of the hysterectomies were performed via abdominal route. But the most common (29.8%) type of the hysterectomy was vaginal hysterectomy. General anesthesia was most (53.2%) common method of anesthesia used.

Table 2: Surgical Characteristics

Variables	Frequency (n)	Percentage (%)
Category		
Elective	40	85.1
Emergency	7	14.9
Type of surgery		
Vaginal hysterectomy + PFR	14	29.8
Total abdominal hysterectomy	10	21.8
TAH+BSO	10	21.3
TAH+USO	8	17.0
Sub-total hysterectomy	5	10.6
Type of anesthesia		
General	25	53.2
Spinal	22	46.8

The commonest (29.8%) indication for hysterectomy was utero-vaginal prolapse and this is shown in Table 3.

Table 3: Indication for Hysterectomy

Indication	Frequency (n)	Percentage (%)
Utero-vaginal prolapse	14	29.8
Uterine fibroid	11	23.4
Gestational trophoblastic disease	6	12.7
Ovarian tumor	5	10.6
Endometrial cancer	4	8.5
Endometrial hyperplasia	3	6.4
Adenomyosis	2	4.3
Cervical intraepithelial neoplasia	1	2.1
Uterine perforation	1	2.1
Total	47	100%

Majority (95.8%) of the hysterectomies had a consultant as the lead surgeon. More so, total abdominal hysterectomies and vaginal hysterectomies were all done by consultants. Out of the 5 subtotal hysterectomies, 2 were performed by senior registrars (4.2%). The mean blood unit transfused during the perioperative period was 1.2±1.2 units. The mean postoperative admission day was 5.23± 2.2 days and about half (51.1%) of the women were admitted for 5 – 9 days. There was one death following hysterectomy during the period under review, giving a mortality rate of 1.78% as shown in Table 4.

Table 4: Perioperative Events

Variables	Frequency (n)	Percentage (%)
Blood transfusion		
Mean unit of blood: 1.2 ± 1.2		
0	15	31.9
1	17	36.2
2 – 4	14	29.8
≥ 5	1	2.1
Postoperative admission days		
Mean = 5.2 ± 2.2		
< 5	21	44.7
5 – 9	24	51.7
10 – 14	2	4.3
≥15	0	0
Cadre of surgeon		
Consultant	45	95.8
Senior registrar	2	4.2

DISCUSSION

The prevalence of hysterectomy in the current study was 24.14%. This is higher than 19.3% reported in Zaria and much higher than 5.1% reported in a similar study in Kano [4, 5]. An interesting disparity as all these studies were done in tertiary health centers of the same north-western region of Nigeria, where the participants share similar socio-cultural practices and religious belief. However, difference in study setting, sample size, population coverage by health centers and availability of alternative public or private health facilities providing similar surgical services could be the reason for the variation. Additionally, the prevalence in this study is lower than 27.9% reported in Uyo, south-south Nigeria and significantly lower than 40% reported in Accra, Ghana [6, 11].

The mean age in this study was 51.72 $\pm$ 12.2 years. This is in agreement with other studies [5, 6, 8, 12]. However, it is lower than 56.6 years and 65.2 years reported in Ibadan south-west and Nnewi south-east Nigeria respectively [9, 13]. Most (34%) of the women belonged to the age of 40-49 years. This is similar to the reports of Ahmed *et al*., and Bukar *et al*., [4, 14]. The acceptance of hysterectomy in this age group may be due to proximity to menopause and completion of family size. More so, hysterectomy was commonest (59.6%) among the grand-multiparous and least (10.6%) among the nulliparous. This is also in keeping with the findings of Ahmed *et al*., [4]. The mean parity in this study was 5.28 $\pm$ 3.3. This is higher than the findings of some studies [8-10]. Age and strong attachment to preservation of menstruation and childbearing are determinants of hysterectomy in the study region.

Majority of the hysterectomy were elective and performed by abdominal route. This observation was similar to the findings of Okunade *et al*., [8]. Furthermore, the ratio of abdominal to vaginal hysterectomy was 2.3:1. This was lower than the ratio of 4:1 in reported Kano, Gombe and Nnewi [4, 9, 14].

Additionally, vaginal hysterectomy was the most common (29.8%) type of procedure and utero-vaginal prolapse was the leading indication for hysterectomy in the current study. Contrary findings were obtained in other studies, in which total abdominal hysterectomy was the most frequently performed procedure and uterine fibroid was the commonest indication [4, 5, 9, 14, 15, 16, 20]. High fertility rate in the study region, with its consequent genital prolapse may be the reason for the relative higher prevalence of vaginal hysterectomy reported in this study.

In the current study, general anesthesia (53.2%) was slightly preferred to spinal anesthesia (46.8%). More so, majority of the hysterectomy were performed by consultants, with only 2 (4.2%) sub-total hysterectomies done by senior registrars. Koledade had a similar report in a study in Zaria [5]. However, more (21.4%) hysterectomy was performed by senior registrars in Kano as observed by Ahmed *et al*., [4].

The mean unit of perioperative blood transfusion was 1.2 $\pm$ 1.2 units and mean days of hospital admission was 5.2 $\pm$ 2.2 days. Contrary findings were obtained in the study by Okunade et al in which the mean unit of blood transfused and mean days of admission were 2.2 $\pm$ 1.5 unit and 8.0 $\pm$ 4.9 days respectively [8]. The disparity could be due to relative high prevalence of vaginal hysterectomy in the current study. Vaginal hysterectomy is associated with less postoperative pain, less blood loss, early ambulation and less hospital stay [17, 18].

Mortality rate of 1.78% was observed in this study. This is higher than 0.12% reported by Okunade *et al*., [8]; and also, in contrast with reports from a study by Rabiu and Habib in which no mortality was recorded [20].

CONCLUSION

This study has shown that hysterectomy is a common procedure that has been accepted in the study center. Pelvic organ prolapse was the leading indication of hysterectomy. Furthermore, vaginal hysterectomy was the most common type of hysterectomy performed.

Acknowledgement: The authors appreciate the Dr. Usama Muhammad for his role in data collection.

Financial support and sponsorship: Nil

Conflicts of Interest: The authors declare no conflicts of interest.

REFERENCES

1. Institute for Quality and Efficiency in Health Care. Hysterectomy (surgical removal of the womb). InformedHealth.org [Internet]. 2018; Available from: https://www.ncbi.nlm.nih.gov/books/NBK525761/
2. Gor, H. B., & Rivlin, M. E. (2021). Hysterectomy Treatment & Management. Medscape. from https://emedicine.medscape.com/article/267273-treatment#d13
3. *Hoffman, B. L., Schorge, J. O., Bradshaw, K. D., Halvorson, L. M., Schaffer, J. I., & Corton, M. M. (2016). Williams Gyanecology. Mc Graw Hill Education. Third edition, 950-956.*
4. Ahmed, Z. D. (2015). Indications and Outcome of Gynaecological Hysterectomy at Aminu Kano Teaching Hospital, Kano: A 5-Year Review. *Open Journal of obstetrics and gynecology*, *5*(05), 298.
5. Koledade, A. K., Oguntayo, A. O., Zayyan, M. S., Avidime, S., Samaila, M. O., & Adesiyun, A. G. (2018). Hysterectomies pattern at a tertiary healthcare center, northern Nigeria. *Tropical Journal of Obstetrics and Gynaecology*, *35*(2), 184-187.
6. Gabriel, A. M., & Olatunbosun, O. A. (2019). An audit of gynaecological hysterectomies in the university of Uyo teaching hospital: Case for non-descent vaginal hysterectomy. *Int J Clin Obstet Gynaecol*, 3, 161-165.
7. *Obilahi, A., Ibrahim, I. A., & Omoregie, O. B. (2013). Hysterectomy in the Niger Delta of Nigeria: A Clinical Study of Indications and Outcome. Greener J Med Sci, 3, 160-165.*
8. Okunade, K. S., Sekumade, A., Daramola, E., & Oluwole, A. A. (2017). A 4-Year clinical review of elective hysterectomies at a university teaching hospital in Lagos, Nigeria. *Journal of Gynecologic Surgery*, *33*(5), 193-197.
9. Obiechina, N. J. A., Ugboaja, J. O., Onyegbule, O. A., & Eleje, G. U. (2010). Vaginal hysterectomy in a Nigerian tertiary health facility. *Nigerian Journal of Medicine*, *19*(3), 324-325.
10. Ogelle, O., Okafor, C., Eke, A. C., Obiechina, N., & Mbamara, S. (2010). Current trends in hysterectomies at a Nigerian tertiary center. *Journal of Gynecologic Surgery*, *26*(1), 7-13.
11. Joseph, D. S., & Richard, M. K. (2004). Hysterectomy for uterine fibroid in Nulliparae at Korlu BU Teaching Hospital Ghana. *Trop J Obstet Gynecol*, 8, 125-128.
12. Ogunlaja, O. A., Fehintola, A. O., Akinola, S. E., Awotunde, O. T., Durodola, A. O., Ogunlaja, I. P., & Oladeji, O. A. (2016). A clinical audit of hysterectomy in Bowen university teaching hospital, Ogbomoso, south west Nigeria. *Tropical Journal of Obstetrics and Gynaecology*, *33*(1), 64-69.
13. Ballo, F. A., Olayemi, O., & Odukogbe, A. A. (2011). An Audit of Vaginal Hysterectomies at thr University College Hospital, Ibadan. *Nigerian Journal of Medicine*, *20*(4), 426-431.
14. Bukar, M., Audu, B. M., & Yahaya, U. R. (2010). Hysterectomy for benign gynaecological conditions at Gombe, north eastern Nigeria. *Nigerian Medical Journal*, *51*(1), 35-38.
15. Chale, G. J., Salim, R. M., & Leshabari, K. M. (2021). Clinical indications for total abdominal hysterectomy among women seen in Dar es Salaam

regional referral hospitals, Tanzania: a prospective, observational hospital-based study. *Pan African Medical Journal*, *38*(1).

16. Michael, D., Mremi, A., Swai, P., Shayo, B. C., & Mchome, B. (2020). Gynecological hysterectomy in Northern Tanzania: a cross-sectional study on the outcomes and correlation between clinical and histological diagnoses. *BMC Women's Health*, *20*(1), 1-8.
17. Jahan, S., Das, T. R., Mahmud, N., Mondol, S. K., Habib, S. H., Saha, S., ... & Joarder, M. (2011). A comparative study among laparoscopically assisted vaginal hysterectomy, vaginal hysterectomy and abdominal hysterectomy: experience in a tertiary care hospital in Bangladesh. *Journal of Obstetrics and Gynaecology*, *31*(3), 254-257.
18. Ribeiro, S. C., Ribeiro, R. M., Santos, N. C., & Pinotti, J. A. (2003). A randomized study of total abdominal, vaginal and laparoscopic hysterectomy. *International Journal of Gynecology & Obstetrics*, *83*(1), 37-43.
19. Omigbodun, A. O., & Ayinde, A. O. (2003). Novel Approaches to the Treatment of Uterine Leimyomata. *Trop J Obstet Gynecol*, 20, 1-3.
20. Rabiu, A., & Habib, R. (2017). Elective abdominal hysterectomy: Appraisal of indications and complications at Aminu Kano Teaching Hospital–An 8-year review. *Tropical Journal of Obstetrics and Gynaecology*, *34*(3), 224-228.

© 2023 | Published by Scholars Middle East Publishers, Dubai, United Arab Emirates