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A CLINICAL AUDIT OF HYSTERECTOMY IN BOWEN UNIVERSITY TEACHING HOSPITAL, OGBOMOSO, SOUTH WEST NIGERIA.

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ABSTRACT

Context: Hysterectomy is a major gynaecological surgical procedure which involves the removal of the uterus, occasionally structures in the adnexae are removed alongside depending on the need to do so. Hysterectomy can be approached Abdominally, vaginally or even with laparoscopic assistance.

Objective: This study was embarked on to ascertain the prevalence, indication, pattern and outcome of hysterectomy over a four (4) year period.

Study design, Settings and Subjects: This study is a four (4) year retrospective review of all cases of hysterectomy either for gynaecological or obstetric reasons managed at BUTH from 1st January 2011 through 31st December 2014.

Result: During the period under review a total of 127 hysterectomies were done for gynaecological and obstetrical indications, However, only 103 case records were available. Gynaecological indication was the reason for hysterectomy in 95 (92.2%) , while the remaining 8 (7.8%) had hysterectomy for Obstetrical indications. The mean age of patients in our study was 49.2±12.6 years; there was an age distribution of 18-90 years. The mean age of patients who had abdominal hysterectomy was 45.3±7.4 years, while the mean age for patients who had vaginal hysterectomy was 68.7±5.3 years. Abdominal hysterectomy accounted for 90(87.4%) , while vaginal hysterectomy accounted for the remaining 13(12.6%) ; there was no case of laparoscopically assisted vaginal hysterectomy done. There were three(3) deaths following emergency hysterectomy performed on account of primary postpartum haemorrhage.

Conclusion: Hysterectomy remains a major gynaecological procedure. Necessary steps are needed to ensure that gynaecologist acquire skills for hysterectomy especially vaginal hysterectomy and even laparoscopic assisted hysterectomy.

INTRODUCTION

Hysterectomy is a major gynaecological surgical procedure which involves the removal of the uterus, occasionally structures in the adnexae are removed alongside depending on the necessity of the situation. General or regional anesthesia is usually required followed by few days of stay in the hospital for post operative care. Hysterectomy can be approached

Abdominally, vaginally. or even with laparoscopic assistance. Abdominal approach is the commonest in about 60% whereby vaginal approach is used in

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around 30% of hysterectomies; however, these figures usually vary from centre to centre. Laparoscopic approach can be used with trained personnel in a well equipped facility.¹⁻³

The acceptance of hysterectomy differs between developed and developing countries, while in the developed countries most women undergo the surgery because of the negative impact that abnormal uterine bleeding, chronic pelvic pain and other gynaecological conditions could have on their quality of life after trying other modalities of alleviating their problems like the medical methods.⁴

In developing countries like ours; there is a strong aversion to surgery, fear of loss of the feminine body image and sexual rejection by their spouse. There is also strong cultural belief or even religious attachment to preservation of menstruation and childbearing.⁵ As a result of the above most women in our environment usually present late with their complaint; hence increasing the attendant risk of morbidity.⁶ The commonest indication in our environment is uterine fibroid⁵⁻⁷ The other indications for hysterectomy include; dysfunctional bleeding, endometriosis, and pelvic organ prolapse.^{2,4}

Studies conducted in other centres across Nigeria in the past showed that the prevalence of hysterectomy as a major gynaecological procedure varied from 8.5% to 16.6%.⁷⁻¹⁰

Bowen University Teaching Hospital is a mission owned tertiary institution in Nigeria, it was conceived from Baptist Medical Centre. Privately owned institutions do not embark on strike actions which has been frequent in our Public tertiary institutions in recent times. Also there has been no audit of hysterectomy in our hospital in the recent past, as a result of this we embarked on this study to ascertain the prevalence, indication and pattern of hysterectomy over a four(4) year period.

MATERIALS AND METHODS

This study is a four (4) year retrospective review of all cases of hysterectomy either for gynaecological or for obstetric reasons managed at Bowen University Teaching Hospital, Ogbomoso, South-west Nigeria from 1st January 2011 through 31st December 2014. The sources of information were patient's case file, gynaecological ward records, anaesthetic records and theatre records. Information regarding the socio-demographic characteristics, presenting complaints, clinical findings, provisional diagnosis, intraoperative and postoperative complications, associated morbidity and mortality pattern were collected. The information obtained was collated and analyzed using SPSS version 20. Approval was sought from the Hospital Ethical Committee.

RESULTS

During the period under review there were 423 major gynaecological procedures; these comprised of 127 hysterectomies which were done for gynaecological and obstetrical indications. From our theatre records there were 114 hysterectomies with gynaecological indications and the remaining 13 had obstetrical indications. The prevalence of gynaecological hysterectomy amongst the major gynaecological procedures carried out in our centre during the period under review was 26.9%. Of these numbers 103(81.1%) case files were available and had the complete information necessary for analysis. Amongst the 103 retrieved case files; gynaecological indication was the reason for hysterectomy in 95 (92.2%), while the remaining 8 (7.8%) had hysterectomy for Obstetrical indications. The mean age of patients in our study was 49.2±12.6 years; there was an age distribution of 18-90 years, Table 1. The mean age of patients who had abdominal hysterectomy was 45.3±7.4 years, while the mean age for patients who had vaginal hysterectomy was 68.7±5.3 years. Majority 60(58.3%) of our patients

were multiparous i.e between their second and fourth parous experience; also 53(51.5%) of patients completed tertiary education while 20(19.4%) had no formal education. Table 1

The commonest presenting complaint was abdominal swelling alone which was experienced by 40(38.8%) of our patients, this was closely followed by heavy menstrual flow which was reported by 27(26.2%) of our patients. Amongst the elderly, the commonest complaint was vaginal prolapse which was seen in 13(12.6%) of our patients. Massive postpartum bleeding not responsive to medical methods of management or conservative surgical procedures was responsible for hysterectomy in 8(7.7%) of our patients, the other common complaints were as shown in Table 2

Uterine fibroid followed by uterovaginal prolapse were the commonest indications for hysterectomy in our study; forty seven (45.6%) and 13(12.7%) respectively. Other diagnoses for which hysterectomy was done are as shown in Table 3.

Ninety two (89.3%) of the hysterectomies were done by consultants while 11 (10.7%) of cases were done by registrars or senior registrars in training.

Regional anaesthesia accounted for 78(75.7%) of the mode of anaesthesia used while general anaesthesia was used in the rest. Abdominal hysterectomy accounted for 90 (87.4%), while vaginal hysterectomy accounted for the remaining 13(12.6%); there was no case of laparoscopically assisted vaginal hysterectomy done. Amongst the Ninety cases of Abdominal hysterectomy done, Seventy eight (86.7%) had total abdominal hysterectomy while 12 (13.3%) had subtotal hysterectomy. Midline skin incision was used in 52 (57.8%) while pfannenstiell was used in 38(42.2%) of cases.

On considering all forms of hysterectomy 38(36.9%) had hysterectomy only while the rest had unilateral or bilateral salpingoophorectomy alongside.

The average duration of hospital stay following hysterectomy was 5.89 ± 2.13 days, with the average duration for vaginal hysterectomy as 4.12 ± 0.58 days and abdominal hysterectomy 6.13 ± 1.12 days.

There were 3 cases of mortality, these deaths occurred following primary postpartum haemorrhage. A total of 37(35.9%) of the patients had one or more forms of post operative morbidity. The common post operative morbidity recorded included Anaemia, noted in 30 (29.1%) patients , post operative pyrexia in 10 (9.7%) patients, wound infection in 5(4.8%) patients , vesico-vaginal fistula in 2 (1.9%) patients. There was no statistical significant difference observed in the morbidity pattern of Abdominal versus Vaginal hysterectomy ($p=0.091$), however, a statistical significant difference was observed between Hysterectomy for obstetric indication as against hysterectomy for gynaecological indication($p<0.001$).

DISCUSSION

The need to perform hysterectomy has continued to confront the gynaecologist during years of practice. This need has come with the peculiar challenge of the late presentation of patients, the increased risk of morbidity or mortality and the requisite implication this poses to the gynaecologist.

This study was embarked upon in our centre to determine the prevalence of hysterectomy performed during the period under review. It was necessary to review our records because of the frequent strike action embarked upon by surrounding public tertiary institutions which has necessitated a few or occasionally many referrals to our hospital.

The prevalence of hysterectomy as a major gynaecological surgical procedure in our centre during the period under review was 26.9%, this figure is higher than those obtained from other centres in Nigeria which was less than 16.6%.⁷⁻¹³ However, the demographic variables obtained like

the mean age in our study for hysterectomy is comparable to those obtained in other studies.^{6,11,13}

Abdominal hysterectomy was the major form of hysterectomy performed in our study. Abdominal hysterectomy comprised of Total abdominal hysterectomy and Subtotal Abdominal Hysterectomy. Abdominal hysterectomy constituted 87.4% of the hysterectomies performed. The reason for this may be because the commonest presenting complaint was abdominal swelling which was mainly due to uterine fibroid; similar observations were made in other studies conducted in Ilorin(north central Nigeria), Ibadan (Southwest Nigeria), Gombe (Northeast Nigeria), and Delta (Southsouth Nigeria).^{7-9,12,13} Subtotal hysterectomy was performed as a result of obstetric reasons like massive postpartum haemorrhage and unsafe abortion.¹⁰ Vaginal hysterectomy accounted for 12.6%; this observation is comparable to those of previous studies conducted in Northeastern Nigeria and in the Niger Delta region.^{12,13} Table 5 showed that vaginal prolapse was mainly responsible for the vaginal hysterectomies in our study and this was similar to that of other studies.^{8,11,12}

There were 3 cases of mortality following obstetric hysterectomy for primary postpartum haemorrhage. Nevertheless, 65(63.1%) of patients had no immediate post operative morbidity reported, Table 4. The two commonest morbidity noted were anaemia (packed cell volume<30%) and post operative pyrexia (persistent temperature > 38° degrees Celsius), this is similar to the findings of other studies.^{8,11,12} Urogynaecologic fistula reported were 2(1.9%), these comprised one case each of ureteric injury following an abdominal hysterectomy and bladder injury following a vaginal hysterectomy, this was lower than the 2.58% reported in a previous study.¹⁰ Our study also revealed a longer hospital stay in the women that had abdominal hysterectomy as opposed to those that had vaginal hysterectomy; this

is similar to findings from previous studies.^{9,12}

The implication of the findings of our study include the fact that there is a gradual increase in the prevalence of hysterectomy in our society probably due to its increased acceptance by the women and their husbands as a safe modality of treatment for gynaecological conditions, improved counseling skills of health workers, and increasing safety of surgery. There is a need for Gynaecologists to acquire the skills for vaginal hysterectomy and use it more often, this is because it has been shown to be associated with prompt recovery from surgery and associated with a shorter hospital stay. Hence, there may be a need for training and retraining of health care givers especially gynaecologists on vaginal hysterectomy. It is also important to emphasize the importance of laparoscopically assisted vaginal hysterectomy since this also has the advantage associated with minimally invasive surgical procedures. More efforts should be put into advocacy as this will enable policy makers in our health institutions to procure the equipments required for laparoscopic procedures where it is considered affordable and necessary for patient care. Postgraduate training programs should also continue emphasizing the need for gynaecologist to acquire skills for vaginal hysterectomy and laparoscopic assisted hysterectomy.

APPENDIX

Table 1: Sociodemographic variables (Age, Parity and Level of Education) of Patients who had Hysterectomy.

| Age in years | Frequency | Percentage % |
|--------------|------------|--------------|
| <20 | 1 | 1.0 |
| 20-29 | 4 | 3.9 |
| 30-39 | 14 | 13.6 |
| 40-49 | 42 | 40.7 |
| 50-59 | 24 | 23.3 |
| 60-69 | 7 | 6.8 |
| >70 | 11 | 10.7 |
| Total | 103 | 100 |

| Parity | Frequency | Percentage % |
|--------------|------------|--------------|
| 0 | 2 | 1.9 |
| 1 | 13 | 12.6 |
| 2-4 | 60 | 58.3 |
| =5 | 28 | 27.2 |
| Total | 103 | 100 |

| Level of Education | Frequency | Percentage % |
|---------------------|------------|--------------|
| No formal Education | 20 | 19.4 |
| Primary | 4 | 3.9 |
| Secondary | 26 | 25.2 |
| Tertiary | 53 | 51.5 |
| Total | 103 | 100 |

Table 2: Presenting complaint of patients who had hysterectomy.

| Age in years | Frequency | Percentage % |
|------------------------------------|------------|--------------|
| Abdominal swelling | 40 | 38.8 |
| Heavy menstrual flow | 27 | 26.2 |
| Vaginal prolapsed | 13 | 12.6 |
| Massive Postpartum bleeding | 8 | 7.7 |
| Offensive vaginal discharge | 5 | 4.9 |
| Recurrent lower abdominal pain | 3 | 2.9 |
| Postmenopausal bleeding | 3 | 2.9 |
| Abdominal swelling and menorrhagia | 2 | 2.0 |
| Abnormal histology findings | 2 | 2.0 |
| Total | 103 | 100 |

Table 3: Diagnosis of Patients who had hysterectomy

| Age in years | Frequency | Percentage % |
|------------------------------------|------------|--------------|
| Uterine fibroid | 47 | 45.6 |
| Uterovaginal Prolapse | 13 | 12.7 |
| Primary postpartum haemorrhage | 8 | 7.8 |
| Cervical carcinoma(Early stage) | 7 | 6.8 |
| Endometrial Carcinoma(Early stage) | 7 | 6.8 |
| Ovarian Carcinoma(Early stage) | 7 | 6.8 |
| Septic Abortion | 6 | 5.8 |
| Chronic Pelvic Pain | 4 | 3.9 |
| Endometrial Polyp | 2 | 1.9 |
| Adenomyosis | 2 | 1.9 |
| Total | 103 | 100 |

Table 4: Immediate Post operative morbidity following hysterectomy

(Total frequency and percentage is greater than 37 and 100% respectively because some patients had more than one post operative morbidity)

| Morbidity | frequency | Percentage % |
|-------------------------|-----------|--------------|
| Anaemia | 30 | 81.1 |
| Post operative pyrexia | 10 | 27.0 |
| Wound infection | 5 | 13.5 |
| Ureteric/bladder injury | 2 | 5.4 |
| Total | 37 | 100 |

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