# INDICATIONS FOR ABDOMINAL HYSTERECTOMY AT THE JOS UNIVERSITY TEACHING HOSPITAL.

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## ABSTRACT

**Objective**: Abdominal Hysterectomy is an everyday procedure in the Department of Obstetrics and Gynaecology of the Jos University Teaching Hospital. There is, however, dearth of data on the indications for and, pattern of morbidity and mortality of this procedure from this centre. This prompted the review.

**Methodology**: This was a retrospective study of all Abdominal Hysterectomies done in the Department of Obstetrics and Gynaecology of the Jos University Teaching Hospital (JUTH), Jos, Plateau state, North Central Nigeria over a four year period (2002-2005).

**Results**: Abdominal hysterectomy accounted for 10.8% of all major gynaecological operations during the study period. The age group of 40-44 years accounted for 50% of the patients that had total abdominal hysterectomy. Uterine fibroid was the commonest indication, which accounted for 89.5% of cases. The morbidity rate was 33% and there was no mortality.

**Conclusion**: Hysterectomy for Uterine fibroids was the commonest indication for l Abdominal Hysterectomy. Though postoperative morbidity was high (33%), there was no mortality.
Key words: Abdominal Hysterectomy, Uterine Fibroids, morbidity, Jos University Teaching Hospital.

## INTRODUCTION

The operation of hysterectomy was first described in the third century AD writing of Soranus, and before the turn of the nineteenth century, carried a horrendous surgical morbidity and mortality rate[1]. This was mainly from haemorrhage and shock. The first surgeon to deliberately and successfully perform total abdominal hysterectomy was G. Kimball of Massachusetts, USA in 1853[2]. However, the first refined abdominal hysterectomy is credited to Wilhelm Alexander Freund of Breslau for menorrhagia on January 30, 1878[3].

Approximately, five hundred and ninety thousand (590,000) hysterectomies are performed every year in the United states of America[4] , while seventy-two thousand and eight hundred and twenty-one (72,821) were perform in the United Kingdom in 1994-1995[5]. This makes hysterectomy the commonest major gynaecological operation and the vast majority of the procedure was performed for benign gynaecological conditions. The procedure may be total hysterectomy when both the body of the uterus and the cervix are removed or subtotal hysterectomy when the cervix is conserved. In the United Kingdom, subtotal hysterectomy is an unpopular procedure, accounting for only 1.4%, of the hysterectomies in 1994-1995[5]. This is apparently largely due to a perceived risk of cervical stump carcinoma [6]. When the 1940s came with antibiotics, blood transfusion, modern anaesthesia and improved surgical techniques, total hysterectomy became the preferred procedure over subtotal hysterectomy.

In the developed countries alternatives to total abdominal hysterectomy such as

endometrial ablation [3,8] and laparoscopically assisted vaginal hysterectomy (LAVH) [7] are being performed increasingly. These facilities are not widely available in the developing countries.

The rate of hysterectomy varies between 6.1 to 8.6 per 1000 women of all ages; with women between 20 and 49 years constituting the largest group (78%) undergoing the procedure. The mean age of women undergoing hysterectomy is 42.6 and the median age is 40.9[7].

In Ibadan, Olumuyiwa et al reported an incidence of 10.2% of total abdominal hysterectomy and a mean age at hysterectomy of 44.2 years with approximately 88.7% of the hysterectomies being performed in women between the ages of 30 to 50 years.

The foregoing study[11], in Ibadan, reported a mean hospital stay of 12 days in women who had total abdominal hysterectomy for gynaecological conditions other than malignancies.

Uterine Leiomyoma was the Leading indication [10]. This is because uterine fibroids are the commonest pelvic tumours in women [11] . Other benign gynaecological conditions for which hysterectomies are performed include dysfunctional uterine bleeding, adenomyosis, benign ovarian tumours, chronic cervicitis and chronic pelvic pain, among others [7, 8, 9, 11].

The procedure is likely to be complicated by injury to the urinary tract in 0.5% to 3%, infection in 5-11% of patients, vault granulation in 21% , postoperative hemorrhage in 0.3% of cases. Other reported complications include, anaemia, bowel injury, pelvic haematoma and pelvic abscess[10, 12]. Late complications are unusual. However the incidence of depression and sexual dysfunction and other emotional difficulties may be increased after hysterectomy. Post hysterectomy prolapse of the vaginal vault may also occur particularly where the vault and posterior vaginal fornix are inadequately supported. Total abdominal hysterectomy is a common operation on every gynaecologist's operation list in our department. Few studies have been conducted to determine the indications for, and morbidity following Hysterectomy. The dearth of data in this regards prompted this review.

## AIMS/OBJECTIVES

The objective of the study were to determine the indications for hysterectomy as well as the pattern and extent of morbidity and mortality, if any, associated with abdominal hysterectomy at the Jos University Teaching Hospital (JUTH)

## PATIENTS AND METHOD

This was a retrospective study of Hysterectomies done at the Department of Obstetrics and Gynaecology, of the Jos University Teaching Hospital, Jos, Plateau state, in North Central Nigeria.

The total number of surgical procedures between January 2002 and December 2005 were noted from the surgery register of the Department.

The case records of patients who had abdominal hysterectomy in the gynaecological unit of the Jos University Teaching Hospital between January 2002 and December 2005 were retrieved from the Records Department, and reviewed. From the case notes, indications for Hysterectomies were noted. The clinical presentation and basic investigations of these patients were also noted. Tables were used to describe the results of the findings from the indications and demographic data as well as associated post operative morbidity. Pyrexia was defined as fever of $38^0$C or greater on two consecutive occasions, and wound infection as local erythema or suppuration. The data collected from the case records were transcribed unto proforma designed for the purpose.

## RESULTS

The total number of major gynaecological operations performed in the 4-year period was 696. Of these, 94 were abdominal hysterectomy, which amounts to 13.5 percent of major gynaecological procedures. Out of the 94 cases of abdominal hysterectomies, 82 case records (87.2%) were complete and analyzable, while 12 (12.7%) were either incomplete or unavailable for analysis. Therefore, a total of 82 abdominal hysterectomy case notes were analyzed. Table 1 shows the

sociodemographic characteristics of the women who had hysterectomy. The mean age at hysterectomy was 45.4 years (range 35-64 years). In all, 66 (80.4%) of the women were married, 3 women were single, 3 were separated from their spouses, 2 were divorced and 8 were widowed.

Table 2 reveals that majority of the patients (48%) were grandmultiparas, and 32.9% had 3 or more living children. The two nulliparous women who had uterine fibroids also had associated infertility. Table 3 reveals that the commonest indication for abdominal hysterectomy was uterine fibroids with or without menorrhagia.

Table 4 shows that only 15% of cases had normal sized uteri at operation while the majority had uterine sizes compatible with 16 weeks gestations or more. Pelvic adhesions were found in 26 patients (31.70%) and there was evidence of previous surgery in 13 cases (16.0%). Endometriosis was noted in one patient.

The histology report agreed with the preoperative diagnosis in 78 cases (95.1%) but was discordant in 4 patients (1.9%). A total of 9 patients (9.6%) had blood transfusion. The commonest procedure performed was total abdominal hysterectomy. Abdominal hysterectomies were performed by consultants in 60 patients (73.2%), senior registrars in 18 patients (21.9%), and by registrars in 4 patients (4.9%).

The vertical midline incision was employed in 69 patients (84.1) while 13 (15.9%) had Pfannenstiel incision.

Table 5 shows that the largest proportion of patients had a hospital stay of 5 to 9 days. The mean length of hospital stay was 8.6 days. Table 6 shows the morbidity pattern in patients who developed complications. There were 27 such cases giving a crude morbidity rate of 28.7%. Pyrexia and wound infection constituted the commonest complications. There was no mortality.

At the outpatient follow up visit, 15 patients (18.29%) defaulted, 63 (69.82%) were found to be asymptomatic. The remaining 4 patients had complaints such as vaginal discharge and lower urinary tract symptoms. Two women complained of menopausal symptoms.

TABLE 1

***SOCIO-DEMOGRAPHIC CHARACTERISTICS OF ABDOMINAL HYSTERECTOMY PATIENTS***

| **Age group (years)** | **No. of cases** | **Percentage** | **Ethnic Group** | | | | **Occupation** | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Hausa | Minority indigene | Igbo | Yoruba | Farming | H/wife | Skilled |
| **35-39** | 3 | 3.7 | 1 | 2 | - | - | 2 | 1 | **-** |
| **40-44** | 36 | 44.0 | 3 | 21 | 6 | 6 | 7 | 19 | **10** |
| **45-49** | 22 | 26.8 | 9 | 7 | 2 | 2 | 9 | 8 | **5** |
| **50-54** | 12 | 14.6 | 10 | 2 | - | - | 2 | 10 | **-** |
| **55-59** | 2 | 2.4 | 2 | - | - | - | 2 | - | **2** |
| **60-64** | 7 | 8.5 | 3 | 2 | 1 | 1 | 2 | 3 | |
| **Total** | 82 | 100% | 28 | 34 | 11 | 9 | 24 | 41 | **17** |
| **% Age** | | **100%** | **34.1%** | **41.4%** | **13.4%** | **10.9%** | **29.2** | **50.0** | **20.7** |

Mean age at Abdominal Hysterectomy was 45.4 years.

**TABLE 2**

**OBSTETRIC HISTORY OF HYSTERECTOMY PATIENTS**

| Parity | No of Patients | Percentage(%) | No. of Living Children | No. of Patients | (%) |
|---|---|---|---|---|---|
| 0 | 2 | 2.4 | 0 | 2 | 2.4 |
| 1 | 5 | 6.1 | 1 | 3 | 3.7 |
| 2 | 9 | 11 | 2 | 10 | 12.2 |
| 3 | 12 | 14.6 | 3 | 17 | 20.7 |
| 4 | 15 | 18.3 | 4 | 10 | 12.2 |
| ≥5 | 39 | 47.6 | ≥5 | 40 | 48.8 |
| Total | 82 | 100 | | 82 | 100 |

TABLE 3

***INDICATIONS FOR ABDOMINAL HYSTERECTOMY***

| **Indication** | **Number** | **Percentage** |
|---|---|---|
| **Uterine fibroids** | 69 | **84.1** |
| **menorrhagia** | 5 | **6.1** |
| **Cervical fibroid polyp** | 5 | **6.1** |
| **Benign ovarian tumours** | 3 | **3.7** |
| **Total** | **82** | **100%** |

***TABLE 4 .OPERATIVE FINDINGS***

| Uterine size | Normal size | <14 weeks | 15-20 weeks | .20 weeks | Total |
|---|---|---|---|---|---|
| Number | 13 | 9 | 56 | 4 | 82 |
| Percentage(%) | 15.9 | 11.0 | 68.2 | 4.9 | 100 |

TABLE 5

***DURATION OF HOSPITAL STAY***

| **Days** | **6-10** | **11-15** | **16-20** | **Total** |
|---|---|---|---|---|
| **Number** | **72** | **9** | **1** | **82** |
| **Percentage(%)** | **87.8** | **11.0** | **1.2** | **100** |

TABLE 6

**POST OPERATIVE COMPLICATIONS**

| **Complication** | **Number** | **%** |
|---|---|---|
| **Pyrexia** | 13 | **15.9** |
| **Wound infection** | 6 | **7.3** |
| **Anaemia** | 4 | **5.0** |
| **Wound Dehiscence** | 2 | **2.4** |
| **Ureteric injury** | 1 | **1.2** |
| **Bowel/Bladder injury** | 1 | **1.2** |
| **Total** | **27** | **100** |

**DISCUSSION**:

The proportion of total abdominal hysterectomy done for benign gynaecological conditions in this study was 10.8%. This is similar to the figure reported from Ibadan[11].

Majority of the patients that underwent hysterectomy during the period of study were in their fourth and fifth decade of life. This appears to be the peak age for most hysterectomies [11, 17, 18]. The mean age at surgery was 45.4 years + 5SD. An abdominal mass and menorrhagia were the two most common modes of presentations.. About 80% of the women studied had three or more deliveries, suggesting that uterine fibroids

may be commoner in multiparous women, in our environment, which is contrary to the suggest increased frequency in infertile, or subfertile women[17,18].

Culturally only women with children readily accept hysterectomy in our environment, even in the presence of pathology. Regular menstrual function, when retained, gives hope of future child bearing. Of the 82 patients the histology reports were in agreement with the preoperative diagnosis in 75 cases (96.15%). This is similar to that reported by Olumuyiwa et al[11].

Dysfunctional uterine bleeding and endometriosis are relatively uncommon indications for hysterectomy in the Negroid[13].

Most of the patients stayed in the hospital for between 5-10 days, which is similar to the figure reported by Olumuyiwa et al[11] from Ibadan, Nigeria. A vertical midline incision was employed in 84.4% of cases; this is advantageous in patients with large pathologies. Abdominal sutures were removed on the fifth day for Pfannenstiel incisions and the seventh day for the vertical incisions. The longer duration of hospitalization may not be unrelated to the high percentage of postoperative morbidity of 32.9% (27 patients). This is similar to the crude morbidity rate of 31.2% reported in the Ibadan study[11]. Pyrexia and wound infection were the commonest complications, accounting for 15.8% and 7.3% respectively.. Malarial endemicity may not be unconnected to the high rate of pyrexia noted. Ezem and Otubu[13] reported a higher figure of 65% morbidity from Zaria in northern Nigeria. However, their cases included malignant conditions.

The commonest antibiotic prophylaxis was parenteral ampiclox and metronidazole in 63 (76.6%) of the patients. The rest had intravenous Augmentin at induction of anaesthesia. This practice was reported to reduce postoperative infections morbidity significantly.

There was no mortality recorded in this study. While admitting that this is a reflection of the standard of surgery and optimum use of ancillary services, the fact that some patients were lost to follow up after discharge may be due to death from late complications such as thromboembolism.

The use of antibiotic prophylaxis to reduce the incidence of postoperative infections and febrile morbidity cannot be over emphasized. This would be particularly necessary in the high-risk patients.

Be that as it may, a prospective study will give a more accurate data on the incidence and outcome of abdominal hysterectomy for benign gynaecological conditions.

**CONCLUSION**:

Abdominal Hysterectomy accounts for 13.5% of all major Gynaecological operations in the Department, with uterine fibroids accounting for 84% of the hysterectomies. Though postoperative morbidity was high (33%), there was no mortality.

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