

TOTAL ABDOMINAL HYSTERECTOMY FOR BENIGN GYNAECOLOGICAL TUMOURS IN JOS UNIVERSITY TEACHING HOSPITAL, JOS PLATEAU STATE.

Muhammad Z, Ibrahim SA and *AGU OC

Correspondence: Dr. Muhammad Zakari.
Department of Obstetrics and Gynaecology,
Aminu Kano Teaching Hospital, Kano
E-mail: zeemoh89@yahoo.com

Abstract:

Background: Total abdominal hysterectomy is a common major gynaecological operation. A significant proportion of the surgeries are done for benign gynaecological tumours.

Objectives: This study aimed to determine the prevalence of total abdominal hysterectomy for benign gynaecological tumours, the morbidity and mortality associated with the surgery and the duration of hospital stay.

Study design: A retrospective study of all cases of total abdominal hysterectomy done for benign gynaecological tumours over a four year period.

Results: Total abdominal hysterectomy for benign gynaecological tumors accounted for 10.6% of all major gynaecological surgeries for the period under study. The age group of 40 – 44 years contributed 45% of the patients that had total abdominal hysterectomy for benign gynaecological tumours. Uterine fibroid was the commonest indication, accounting for 90.37% of all cases. About 35% of the cases had postoperative complications. There was no mortality recorded.

Keywords: Abdominal hysterectomy; benign tumours; Post operative morbidity; Jos.

Introduction:

Approximately five hundred and ninety thousand (590,000) hysterectomies are performed every year in the United States of America¹, and seventy-eight thousand and eight hundred and twenty-one (78,821) were performed in the United Kingdom in 1994 – 1995². This makes hysterectomy the commonest major gynaecological operation, and the vast majority of the procedure was performed for benign disease³

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 1.47% of the hysterectomies in 1994 - 1995². This is apparently largely due to a perceived risk of cervical stump carcinoma³.

Charles Clay performed the first recorded hysterectomy in 1843⁴. The patient unfortunately died in the immediate postoperative period. Undaunted, Clay performed another hysterectomy the following year. This was a subtotal hysterectomy and the patient lived for 15 days. Subsequent hysterectomies were subtotal until 1929 when Richardson performed a hysterectomy, which included removal of the cervix⁵.

When the 1940s heralded antibiotics, blood transfusion, modern anaesthesia and improved surgical techniques, total hysterectomy took off as the preferred procedure over subtotal hysterectomy.

Alternatives to total abdominal hysterectomy such as laparoscopically assisted vaginal hysterectomy (LAVH) ⁶ and endometrial ablation^{7, 8} are being performed in developed countries. These facilities are not widely available in the developing countries.

The rate of hysterectomy varies from 6.1 to 8.6 per 1000 women of all ages; with women between 20 and 49 years constituting the largest segment (75%) of women undergoing the procedure. The mean age of women undergoing hysterectomy is 42.7 years and the median age is 40.9 years^{3,9}.

In Ibadan, Olumuyiwa et al reported an incidence of 10.2% of total abdominal hysterectomy and a mean age at hysterectomy of 44.20 years with approximately 88.7% of the hysterectomies being performed in women between the ages of 30 to 50 years. 77.3% of the women who had hysterectomy for benign gynaecological condition had three or more living children as was reported by Olumuyiwa et al¹⁰

Of the five hundred and ninety thousand hysterectomies performed in the United States of America in 1991, the average length of hospital stay was 4.5 days. Of these 590,000 (75%) were performed abdominally and 25% vaginally⁹.

In Ibadan, Olumuyiwa et al¹⁰ reported a mean hospital stay of 12 days in women who had total abdominal hysterectomy for benign gynaecological conditions.

Uterine leiomyomas is the leading indication for hysterectomy, accounting for 82.19 percent of hysterectomies performed for benign gynaecological condition¹⁰. This is because uterine fibroids are the commonest pelvic tumours in women¹¹. Other benign gynaecological conditions for hysterectomy include, dysfunctional uterine bleeding, benign ovarian tumours, adenomyosis, chronic cervicitis and chronic pelvic pain among others¹¹.

The procedure is likely to be complicated by injury to the urinary tract in 0.5% - 3%¹², infection which occurs in 5 – 11% of patients, vault granulation in 21%¹², post operative haemorrhage in 0.3%¹³ of cases. Other reported complications include, anaemia, bowel injury, pelvic abscess and pelvic haematoma¹⁰.

Late complications following hysterectomy are unusual¹³. However, the incidence of depression and sexual dysfunction and other emotional difficulties may be increased after hysterectomy¹³. Post hysterectomy prolapse of the vaginal vault may also occur particularly where the vault and the posterior vaginal fornix are inadequately supported.

Total abdominal hysterectomy for benign gynaecological conditions is a commonly performed surgery in our department and there has been no previous documentation. The absence of any such study prompted this review.

Materials And Methods:

The case records of patients who had abdominal hysterectomy in the gynaecological unit of Jos University Teaching Hospital, over a four-year period (January 1st, 1998 and December 31st, 2001) were retrieved. Ninety-eight women had total abdominal hysterectomy for benign gynaecological tumours during the period under review. Eighty-three (84.69%) case notes were traced. This formed the basis of the analysis. Data related to age, parity, indication for the operation, post-operative complications and length of hospital stay were collated and analysed.

Results:

There were Nine hundred and twenty-five major gynaecological surgeries performed during the period under review. Ninety-eight of these patients had total abdominal hysterectomy for benign gynaecological tumours accounting for 10.6% of all major gynaecological operations for the period.

The mean age at hysterectomy in this study was 46.6 years, age range of 35-64 years (Table 1.) 44.58% of the women who had total abdominal hysterectomy were in the age group of 40-44 years. Mean age = 46.6 years.

48.2% of the patients were of parity 5 or more (Table 2.) The two nulliparous women had uterine fibroid with associated infertility

About 82% of the patients in this study had 3 or more living children (Table 3.)

The commonest indication for total abdominal hysterectomy was uterine fibroid with or without menorrhagia, accounting for 90.37 percent of the cases (Table 4.)

86.75% of the patients had a hospital stay of 5 – 9 days (Table 5.) The mean length of hospital stay was 8.7 days.

34.92% of the patients had postoperative complications (Table 6.) Pyrexia accounted for 21.69%

Discussion

The prevalence rate of total abdominal hysterectomy done for benign gynaecological tumours in this study was 10.6%. This is similar to the figure reported from Ibadan¹⁰.

The mean age at hysterectomy was 46.6 years. 44.58% of the women who had hysterectomy for benign gynaecological tumours were in the age group of 40-44 years. This is comparable to reports by other authors^{3, 10, 13-15}.

About eighty-one percent of the women had had 3 or more children. Culturally, only women with children commonly accept to have their uterus removed for whatever reason in this environment. Women of low parity have preference to retain their regular menstrual function as an index of hope for bearing children in future^{16, 17}.

Most of the patients in this review presented with menorrhagia and abdominal swelling. This is in agreement with the high rate of pre-operative diagnosis of uterine fibroids, the commonest pelvic tumour seen in women in this study.

Uterine fibroid accounted for 90.37% of the cases that had hysterectomy for benign gynaecological tumours. This is similar to reports by other workers^{10, 16,17}.

Little information exists in the gynaecological literature comparing pre-operative diagnosis for hysterectomy to pathological results. However, in this study of the 78 cases whose histology reports are known, there was agreement with the pre-operative diagnosis in 77 cases (97.4%), one case was reported as Adenomyosis. This compares with 94% reported by Olumuyiwa et al¹⁰, but contrast with 50% reported by Nancy et al¹⁸.

Majority of the cases had a hospital stay of 6-10 days with a mean length of 8.7 days. This figure is higher than the mean length of hospital stay of 4.5 days in United States of America, but comparable to the report by Olumuyiwa et al^{7, 10} from Ibadan. Abdominal sutures are routinely removed on the seventh postoperative day in our unit. Therefore, the longer hospital stay may be due to the high rate of post-operative morbidity in the developing countries compared to the developed world.

Twenty-nine patients had post-operative complications accounting for 34.92% of the cases. Pyrexia and wound infections were the commonest postoperative complications, accounting for 21.69% and 6.02% respectively in this study. A rate

of 31.2% postoperative complication following total abdominal hysterectomy for benign gynaecological conditions was reported from Ibadan¹⁰. The high prevalence of pyrexia may be as a result of malaria endemicity in this country. A higher complication rate of 65% was reported from Zaria in Northern Nigeria by Ezem et al¹⁹. However, their cases involved malignant diseases. Morbidity of some sort is said to complicate 50% of patients undergoing abdominal hysterectomy in other studies^{20, 21}.

Majority of the patients (85.5%) had prophylactic antibiotics post operatively in the form of Ampiclox and metronidazole. While the others had preoperative Augmentin. This was reported to significantly reduce the postoperative infectious morbidity²².

There was no mortality recorded in this study. A similar result was reported from Ibadan¹⁰.

In conclusion, this review showed that majority of the women undergoing hysterectomy are multiparous (80.72%) with uterine fibroid with or without menorrhagia being the commonest indication (90.37%) and postoperative pyrexia complicated 21.69% of the cases. Lack of adequate nutrition and perhaps, poor personal hygiene may have resulted in poor wound healing and therefore the long

duration of hospital stay in this study. In addition, inappropriate surgical techniques may have contributed to the high rate of infectious morbidity reported in this study.

There is the need for a prospective study to more accurately ascertain the incidence and outcomes of hysterectomy for benign gynaecological tumours in this environment.

References:

1. Pokras R. and Hufragel VG. Hysterectomy in the United States
Vital Health Statistics, series 13 No. 92 Washington D.C. Government Printing
Office. 1987; (DHHS Publication) 88 – 1753.
2. Thakar R, Mayonda I, Robinson G, Clarkson P and Stanton S. Total versus
subtotal hysterectomy. A survey of current views and practice amongst British
gynaecologists. J. Obstet Gynaecol 1998; 18:267-269.
3. Thakar R. and Mayonda I. Hysterectomy for benign disease. In: John
Studd(ed). Progress in Obstetrics and Gynaecology vol.14.London Churchill
Livingstone 2000, 233-242
4. Sutton S. Hysterectomy; a historical perspective Ballieres clin. Obstet
gynaecol. 1997; 11:1-22.
5. Richardson EH. A simplified technique for abdominal panhysterectomy. Sur.
Gynaecol Obstet. 1929, 48:248-251.
6. Philipps JH, John M and Nayak S. Comparison of laposcopically assisted
vaginal hysterectomy and bilateral salpingoophorectomy with conventional
abdominal hysterectomy with bilateral salpingoophorectomy. Br. J. Obstet
Gynaecol. 1993; 100:698-700

7. Dwyer N, Hutton J and Stirrat GM. Randomised controlled trial comparing endometrial resection with abdominal hysterectomy for the surgical treatment of menorrhagia. *Br. J. Obstet Gynaecol* 1993; 100: 237-243
8. Aberdeen S. Endometrial ablation versus abdominal hysterectomy for the treatment of dysfunctional uterine bleeding outcome at four years. *Br. J. Obstet. Gynaecol.* 1999; 106:360-366
9. Thomas GS. Hysterectomy. In: Jonathan SB Elli YB and Palva AH (eds). *Novak's Gynaecology*. 12th edition. Oxford: Williams and Wilkins. 1996; 727 – 767.
10. Olumuyiwa AR and Micheal AO. Abdominal hysterectomy for benign gynaecological conditions at Ibadan, Nigeria. *Trop J. Obstet Gynaecol.* 2001; 18(1): 19-23.
11. Gambine JC and Reifer RC. Hysterectomy. *Clin. Obstet Gynaecol.* 1990; 33:205-211.
12. Drife J. Conserving the cervix at hysterectomy. *Br.J Obstet Gynaecol.* 1994; 1016:563-564.
13. Emembolu JO. Uterine fibromyomata. Presentation and management in Northern Nigeria *Int. J Gynaecol obstet.* 1987; 25: 413-416.
14. Chryssikopoolous A and Loghis C. Indications and results of total hysterectomy. *Int. surg.* 1986; 71:188-194.

15. Machkenzie IZ. Reducing hospital stay after hysterectomy Br. J. Obstet Gynaecol. 1996; 103:175-178
16. Ogunbode O. Environmental factors in the Management of fibroids. Trop. J Obstet Gynaecol. 1980; 2:110-120.
17. Oseifo ND. Caesarean and post partum hysterectomy in Enugu 1973 – 1986. Int. J Gyneacol Obstet. 1989; 93-97.
18. Nancy C, Lee MD, Richard C and Dicker MD. Confirmation of the preoperative diagnosis for hysterectomy. Am. J. Obstet Gynaecol. 1984; 150: 283-287.
19. Ezem BU and Otubu JAM. Hysterectomy in the Hausa/Fulani population in Nigeria. Int. J. Gynaecol Obstet. 1981; 19: 145-149
20. Thompson JD. Hysterectomy. In: Thompson JD and ROCK JA (ed). Textbook of operative gynaecology. 7th edition. Philadelphia JB Lippincott Company. 1992; 663-738.
21. Ozumba BC and Attah CA. Ureteral injury in obstetrics and gynaecologic operations in Nigeria Int. J. Gynaecol Obstet. 1991; 36:131-135
22. Tanus V and Rojansky N. Prophylactic antibiotics in abdominal hysterectomy. J AM Coll.Surg.1994; 179:593-600.

23. Pokras R. and Hufragel V.G. Hysterectomy in the United States

Vital Health Statistics, series 13 No. 92 Washington D.C. Government Printing Office. 1987; (DHHS Publication) 88 – 1753.

24. Thakar R, Mayonda 1, Robinson G, Clarkson P and Stanton S. Total versus subtotal hysterectomy. A survey of current views and practice amongst British gynaecologists. J. Obstet Gynaecol 1998; 18:267-269.

25. Sutton S. Hysterectomy; a historical perspective Ballieres clin. Obstet gynaecol. 1997; 11:1-22.

26. Richardson EH. A simplified technique for abdominal pan hysterectomy. Sur. Gynaecol Obstet. 1929, 48:248-251.

27. Philipps JH, John M and Nayak S. Comparison of laposcopically assisted vaginal hysterectomy and bilateral salpingoophorectomy with conventional abdominal hysterectomy with bilateral salpingoophorectomy. Br. J. Obstet Gynaecol. 1993; 100:698-700

28. Dwyer N. Hutton J and Stirrat GM. Randomised controlled trial comparing endometrial resection with abdominal hysterectomy for the surgical treatment of menorrhagia. Br. J. Obstet Gynaecol 1993; 100: 237-243

29. Thomas GS. Hysterectomy. In: Jonathan SB Elli YB and Palva AH (eds). Novak's Gynaecology. 12th edition. Oxford: Williams and Wilkins. 1996; 727 – 767.

30. Gambine JC and Reifer RC. Hysterectomy. Clin. Obstet Gynaecol. 1990;
33:205-211.

31. Drife J. Conserving the cervix at hysterectomy. Br.J Obstet Gynaecol. 1994;
1016:563-56

Table 1: Age distribution:

<u>Age (year)</u>	<u>Number</u>	<u>Percentage</u>
35 – 39	4	4.82
40 – 44	37	44.58
45 – 49	20	24.09
50 – 54	14	16.87
55 – 59	0	0.00
<u>60 – 64</u>	<u>8</u>	<u>9.64</u>
	83	100%

Table 2. Parity distribution:

<u>Parity</u>	<u>Number</u>	<u>Percentage</u>
0	2	2.40
1	5	6.04
2	9	10.84
3	12	14.46
4	15	18.07
<u>≥5</u>	<u>40</u>	<u>48.19</u>
	83	100%

Table 3: Number of living children:

<u>Number of living Children</u>	<u>Number</u>	<u>Percentage</u>
0	2	2.40
1	3	3.61
2	10	12.05
3	18	21.69
4	9	10.85
<u>≥5</u>	<u>41</u>	<u>49.40</u>
	83	100%

Table 4: Indications for hysterectomy:

<u>Indication</u>	<u>number</u>	<u>Percentage</u>
Uterine fibroid ± menorrhagia	75	90.37
Cervical fibroid polyp	2	2.40
<u>Benign ovarian tumour</u>	<u>6</u>	<u>7.23</u>
	83	100

Table 5: Length of hospital stay:

Days	6 – 10	11 – 15	16 – 20	Total
Number	72	10	1	83
Percentage	86.75	12.05	1.20	100%

Table 6: Postoperative complications:

<u>Complications</u>	<u>Number</u>	<u>Percentage</u>
Pyrexia*	18	21.69
Wound Infection ⁺	5	6.02
Anaemia	3	3.61
Wound dehiscence	2	2.40
<u>Ureteric injury</u>	<u>1</u>	<u>1.20</u>
	29	34.92%

*Pyrexia: fever of $\geq 38^{\circ}$ C on 2 consecutive occasions 24 hours after surgery

+Wound Infection: Local erythema and suppuration.