Original Article

Trends of Myomectomy at the University of Nigeria Teaching Hospital (UNTH) Enugu Nigeria

1. Okeke T.C., 1. Okezie O.A., 1. Obioha K.C.E., 2. Ikeako L. C., 2. Ezenyeaku C. C.,

1. Department of Obstetrics & Gynaecology
University of Nigeria Teaching Hospital (UNTH) Enugu Nigeria

2. Department of Obstetrics & Gynaecology
Anambra State University Teaching Hospital, Awka, Nigeria

ABSTRACT

BACKGROUND: Uterine fibroid is the commonest female genital tumour occurring within the reproductive age group, and abdominal myomectomy is the most offered surgical treatment in our environment. There is need to audit this practice in our centre so as to observe the practice pattern and outcome of myomectomies in Enugu, Nigeria.

OBJECTIVE: To audit myomectomies, the practice pattern and outcome at the University of Nigeria Teaching Hospital Enugu-Nigeria.

METHODS: A 5-year retrospective study of myomectomies performed in UNTH Enugu between January 1, 2004 and December 31, 2008. Data relating to socio-demographic characteristics, indication for surgery, intraoperative haemostatic measures, estimated blood loss, use of drain, duration of hospital stay and complications were abstracted and analyzed.

RESULT: A total of 122 abdominal myomectomies were performed and 70.5% of the patients were aged 30 39 years and 80% were nullipara. Lower abdominal swelling and discomfort were the commonest presentation and indication for the surgery. Tourniquet was used for haemostasis in 57.4% while postoperative drain was inserted in 52.6%. 24.6% received blood transfusion and the average duration of hospital stay was 8.6days. Complications were mild, with pyrexia as the commonest complication (28.7%). There was no mortality.

CONCLUSION: Though myomectomy is safe and tolerated in our centre, a consensus practice pattern through a prospective study is required to further improve outcome.

KEYWORDS: Trend, uterine fibroids, myomectomy, Enugu Nigeria.

INTRODUCTION

Uterine leiomyomas commonly called fibroids are benign tumours of uterine myometrium, and are the commonest female genital tumour[1]. They are composed of muscles with variable amount of connective tissues arranged in whorl-like pattern and are covered by pseudo-capsules, which are fibroid compressed myometrial fibres.

Aetiology is unknown[2] but their growth and enlargement have been linked to oestrogen and progesterone stimulation, hence their preponderance in the reproductive age group[2]. They are present in up to 20-30% of women above the age of 30 years and are found 3 to 9 times more frequently in blacks than in Caucasians[3]. Fibroids constitute about 53.4% of all gynaecological tumours seen at UNTH, Enugu[4].

Majority of fibroids are asymptomatic and may not require immediate treatment. When symptomatic, they usually present with abnormal uterine bleeding, abdominal mass, abdominal discomfort or pain, pressure symptoms and infertility, and as such would require treatment. This treatment involves expectant, medical or surgical management. Newly introduced modes of treatment include uterine artery embolization, and most recently, high intensity focused ultrasound treatment[5].

Surgical management either by myomectomy or hysterectomy still remains the major form of treatment for fibroids in current gynaecological practice despite the advent of medical treatment and minimal access surgical techniques[1,3,5]. In our environment where uterine retention is highly desired due to cultural and superstitious beliefs, traditional abdominal myomectomy is the main stay of fibroid treatment[4,6]. Earlier study in our center indicated that abdominal myomectomy constitutes 60% of surgical treatment for uterine fibroids[7]. Despite the high rate of myomectomy in our centre, there is still controversy among the consultants on some techniques such as the use of tourniquet for haemostasis and the use of postoperative drains after myomectomy. The technique of accessing pedunculated sub-mucous or posterior wall myomas has also generated controversies[3,7].

This study therefore is a description of the current pattern of practice and outcome of myomectomy in our centre. It is hoped that the study will generate local data

Correspondence: Dr. T.C Okeke, Department of Obstetrics & Gynaecology University of Nigeria Teaching Hospital (UNTH) Enugu Nigeria. EMAIL:Ubabiketochukwu@yahoo.com

that will assist in a feature prospective study in order to improve outcome of myomectomy.

MATERIALS AND METHOD: A 5-year retrospective study of myomectomies in the UNTH Enugu Nigeria between January 1st, 2004 and December 31st, 2008 was performed. In-patients records of patients with primary diagnosis of symptomatic fibroid were looked at. The case records of those who had abdominal myomectomy were retrieved and analyzed in detail. Data abstracted from the case notes included socio-demographic characteristics, indication for surgery, pre and post operative packed cell volume, estimated intra-operative blood loss, use of tourniquet and post operative drain, duration of hospital stay and complications. The surgeons are the consultants and the residents. The prerequisite surgical skills are possessed by the consultants and the senior residents. The findings were analyzed and data presented by frequency tables by simple percentages.

RESULTS:
During the five-year period, there were 2346 gynaecological admissions, out of which 165(7.0%) cases were admitted for symptomatic fibroids.

Of these 165 cases of symptomatic fibroids, 122 (74%) had abdominal myomectomy. There were 40(24.2%) cases of abdominal hysterectomy and 3(1.8%) cases of polypectomy.
The age and parity distribution is shown in table 1. 70.5% of the patients were aged 30 39years. The age range was 23 41years. 80% of the patients were para 0.

In table 2, the patient population cuts across all social classes and main occupation was trading which was the commonest 39 (32.0%). The pattern of presentation represented in table 3 indicates that lower abdominal swelling and discomfort were the commonest presenting symptoms (45%). The uterine sizes of the patients ranged from 10 to 28 weeks.

Pre-operative hysterosalpingogram was done in 39 patients (31.6%). Of the 15 patients that presented with infertility, only 4 (28.6%) had hysterosalpingogram. None of the patients had a cervical smear prior to surgery and in 8 (6.5%) cases, no histology was documented to establish the diagnosis.
The pre-operative packed cell volume ranged from 24% to 39%. The postoperative packed cell volume ranged from 20% to 38%. Post operative packed cell volume was not documented in 20(16.4%) patients.
Distribution of the use of tourniquet is shown in table 4. Tourniquet was used intraoperatively for haemostasis in 70 (57.4%) patients with average blood loss of 400mls. The 52 (42.6%) patients in whom tourniquet was not used had average blood loss of 580mls. 30(24.6%) patients were transfused intra or postoperatively. Postoperative drain to minimize haematoma formation and consequent pelvic adhesions was used in 64 (52.5%) patients. This is shown in table 5.

The average duration of stay following surgery was 8.6 days and the commonest postoperative complication was pyrexia which was observed in 35 (28.7%) patients. Anaemia and sepsis were seen in 32 (26.2%) and 10(8.2%) patients respectively. This is shown in table 6.

Table 1: Age and parity Distribution

Age	Para O	Para 1-4	Para >5	Total	Percentage
20 29	26	4	0	30	24.6
30 39	68	17	1	86	70.5
>40	4	2	0	6	4.9
Total	98	32	1	122	100
Percentage	80.3	18.9	0.8	100	100

Table 2: Occupational Distribution of Patients

Occupation	Frequencies	Percentage
Trading	39	32.0
Housewife	32	26.2
Civil Servant	26	21.3
Professional	19	15.6
Crafts	6	4.9
Total	122	100

Table 3: Pattern of Presentation

Presentation	Frequencies	Percentage
Lower abdominal swelling/ discomfort	55	45.1
Heavy menstrual flow	39	32.0
Infertility	15	12.3
Irregular vaginal bleeding	9	7.4
Others	4	3.3

Table 4: Distribution of use of Tourniquet during Myomectomy

Use of Tourniquet	Frequency	Percentage	Average blood loss
Yes	70	57.4	400mls
No	52	42.6	580mls

Table 5
Distribution of use of Postoperative Drain after Myomectomy

Use of Drain	Frequency	Percentage
Yes	64	52.5
No	58	47.5

Table 6
Distribution of complications following Myomectomy

Complication	Frequency	Percentage
Pyrexia	35	28.7
Anaemia	32	26.2
Sepsis	10	8.2
Secondary Haemorrhage	3	2.5

DISCUSSION

Uterine conservation by myomectomy is the most common surgical treatment for fibroids in our environment. This is in consideration of the peak age of occurrence, our aversion to hysterectomy and limited facilities within our reach. This is reflected in the proportion of patients (74%) admitted for symptomatic fibroids who had myomectomy in this review. This agrees with findings in the earlier study in Enugu[7] and other centres[6,10].

The socio-demographic features of the patients indicate that nulliparous women had more symptomatic fibroids and underwent myomectomy more frequently than the parous women. This is in keeping with the increased risk of fibroids occurring in the nullipara based on the theory of hypoxic injury at menstruation[8]. It also suggest an association between uterine fibroids and subfertility[7-9]. Furthermore, some of the parous women were offered hysterectomy as against the myomectomy offered the nullipara. It is also known that less fibroid symptoms occur among parous women as a result of the negative effects of multiparity on fibroid growth and development[1,2]. This pattern conforms to findings in other studies[7,9,10].

The age range (30-39years) of highest prevalence of fibroid and myomectomy in this review is similar to the findings in other studies[6,7,9]. The 3rd and 4th decades of life represent the age of highest prevalence of uterine fibroids and myomectomy[3,11]. The reason for this, though speculative is not unconnected to the preponderance of female sex hormones[6,8,12]. The pattern of presentation in this review is different from the pattern in some studies,[3,13,14] where abnormal bleeding was the leading presenting complaint. It is however in keeping with the pattern of presentation in other reviews[7,11]. The higher prevalence of lower abdominal swelling as a presenting complaint was reflected in the findings at surgery where most of the fibroids were subserosal and pedunculated. However, pressure symptoms that one would have expected were surprisingly low (< 3.3%). The reason may not be unconnected with the fibroid sizes.

This review also shows that in about half of the surgeries, tourniquet was not used for haemostasis. This may be because some surgeons rely on the advantage of speed and experience to minimize haemorrhage during myomectomy. However, blood loss was greater in these cases than in cases where tourniquet was used. The haemostatic benefits of tourniquet use in myomectomy have been documented in many studies[1,11,15]. Other methods of minimizing intra-operative blood loss during myomectomy such as pre-operative vaginal misoprostol, intramyometrial vasopressin and epinephrine[15,16] were not used in any of the cases and are generally not used in our centre.

The use of postoperative drains has similar prevalence (52.5%) as the tourniquet in this review. Though postoperative drains may help to reduce pelvic haematoma and adhesion formation, some gynaecologists do not use it for fear of introducing infection[8]. The infusion of corticosteroids and Dextran 70 into the peritoneal cavity to prevent adhesion formation is practiced by some surgeons[7]. This is not widely accepted by all gynaecologists and no such practice was documented in the review. Current reviews of myomectomy emphasize greater benefit of using absorbable tissue adhesion barrier on suture lines to prevent adhesion[17].

In this review, most cases of infertility that had myomectomy (71.4%) did not have pre-operative hysterosalpingogram. This is unfortunate, as some patients with infertility would have benefited from pre-operative hysterosalpingogram to assess the state of their fallopian tubes with the opportunity to intervene in any blockage during the time of surgery. A combined surgery in such situation has been recommended in some studies, as it obviates the need for a separate operation later[18]. Moreover, pre-operative knowledge of the state of the tubes would offer a better opportunity for proper counseling prior to surgery. In a few cases, no histological diagnosis was made or documented to establish diagnosis. This may have been an error of omission in clinical practice and documentation. This practice should be condemned, as the benefits and follow-up of the cases are thus underlined.

The average blood loss and the mean duration of hospital stay are similar to the findings at Nnewi and Ile-Ife[6,10] both in Nigeria. This is not surprising, considering that these outcomes may directly reflect practice style, which are similar in most of the centres. Shorter hospital stay reported in the United States of American studies is due to the use of minimal access surgery that is still been introduced in our developing countries[13].

CONCLUSIONS

This review indicates that though myomectomy is safe and the immediate outcome good in our centre, measures to reduce haemorrhage and adhesion are either not adopted or poorly documented in some cases. Complete case definition through proper investigation and follow-up are inadequate in some cases. There is therefore, need for a prospective study to assess the benefit of complete case definition and follow-up and as well evaluate the haemostatic and anti-adhesion measures during myomectomy. This will help generate consensus practice

that may further improve outcome of myomectomy in this centre.

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