East African Medical Journal Vol. 78 No. 4 April 2001
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ABSTRACT

Objective: **To determine the acceptability and practicability of day-care surgery in a semi-urban area of Nigeria.**
Design: **A twelve- month prospective study.**
Setting: **Wesley Guild Hospital, Ilesa, Nigeria.**
Patients: **Sixty seven consecutive patients with ASA I - II status and aged three months to 97 years were studied.**
Intervention: **Patients were operated as day-cases using general or local anaesthesia.**
Main outcome measures: **Practicability, post-operative problems and acceptability.**
Results: **The mean age of patients studied was 27.26 years (SD 23.89), with males accounting for 61% of the 67 cases. Fifty eight per cent and 42% had general and local anaesthesia respectively. While all patients had post-operative support from family members, less than seven per cent had access to telephone or family doctor services. About 80% of the patients lived within 10km from the hospital. Intermediate operations accounted for 60% of the cases, while minor ones accounted for 40%. The mean operating time was 30 minutes. Post-operative pain was the only significant problem encountered. This, however, decreased in the patients with time. Complication rate was 10.5%.**
Conclusion: **A significant number of patients accepted and approved of the day stay surgery. Medical and surgical practitioners in semi-urban regions are encouraged and charged to accept the practice of short stay surgery.**

INTRODUCTION

It is now established all over the world that with strict adherence to guidelines, prerequisites of fitness, good social, medical and nursing support, day-case or short stay surgeries are satisfactory and desirable(1-3). The advantages of this practice have been well demonstrated by various workers(3-7). These advantages include reduced cost on the patient, reduced burden on hospital services, more available beds for other patients, more operative spaces for more patients requiring surgery, with increased income to the hospital. Trauma of separation, sudden change in environment, long waiting lists, sick leave absentees are all reduced.

However, early discharge with subsequent convalescence at home increases the responsibility of family support, family practitioner as well as community nurses(8-10), It also requires good transport, communication, ambulance and emergency services, most of which are unavailable or inaccessible to most Nigerians.

The guideline followed in western countries can easily be met in some of our major urban centres(11,12) but may be difficult to realise in the semi urban/rural areas. The experience of Yawe *et al*(11) was encouraging. It was to find out how practicable and acceptable the day care surgeries are in a semi urban area like Ife-Ijesa, Nigeria, that this study was embarked upon.

MATERIALS AND METHODS

The study was carried out in Wesley Guild Hospital, a unit of Obafemi Awolowo University Teaching Hospitals Complex, situated in a semi - urban area in south western Nigeria.

Patients operated as day cases between January and December, 1998 were prospectively studied. We studied surgical disease diagnosis, age of patients, distance of patients' home to hospital, type of surgery, anaesthetic risks using the classification of the American Society of Anesthesiologists (ASA), types of surgery, post-operative problems and complications (noted in the recovery room, at home and on clinic visits).

RESULTS

A total of 67 patients were prospectively studied. There were 41 males (61.2%) and 26 females (38.8%). Their age distribution is as shown in Table 1. The ages ranged between three months and 97 years (mean 27.26yrs ± 23.89). Only patients with ASA classification I and II were included in the study. Thirty nine patients (58.2%) had general anaesthesia while twenty seven (41.8%) had local anaesthesia. All patients had home support from family members to care for them postoperatively. Only four patients (5.9%) had personal telephone services. Three patients (4.5%) had access to family doctors to care for them at home.

Table 1

Age range

Age (years)	No. of patients	%
≤10	22	32.8
11 - 20	12	17.9
21 - 30	5	7.5
31 - 40	5	7.5
41 - 50	9	13.4
51 - 60	8	11.9
61 - 70	4	6.0
>71	2	3.0
Total	67	100.0

Table 2

Estimated distance from hospital

Distance (km)	No. of patients	%
< 1	9	13.4
1 - 5	31	46.3
6 - 10	14	20.9
> 10	13	19.4
Total	67	100.0

Table 3

Types of surgery carried out

Minor	No. of patients	%	Intermediate	No. of patients	%
Incisional biopsy	2	3.0	Herniorrhaphy	14	20.9
Excisional biopsy	20	29.8	Herniotomy	16	23.9
Bouginage	1	1.5	Umbilical hernia repair (Mayo Repair)	3	4.5
Circumcision	1	1.5	Hydrocoelectomy	3	4.5
Diagnostic lymph Node biopsy	3	4.4	Orchldopexy	4	6.0
Total	27	40.2		40	59.8

Table 4

Duration of the procedure

Duration (minutes)	No. of patients	%
0 - 15	1	1.5
16-30	29	43.3
31-45	10	14.9
46-60	19	28.4
61-75	4	5.6
76-90	4	5.6
Total	67	1 00

Table 5

Post operative problems

Problem	Immediate Post op.	Post op Day 1	1st follow up Post OP Day 4	2nd follow up Post OP 8 -10 days
Pain	67	52	19	8
Vomitting	–	1	–	–
Drowsiness	3	–	–	–
Headaches	2	–	–	–
Hunger	1	–	–	–
Weakness	1	–	–	–

The estimated distance from the hospital to the homes of the patients (Table 2) ranged from 500m - 12km. Table 3 indicates the types of surgery carried out on the patients. Excision of lumps and hernial repairs accounted for more than seventy per cent of the cases. The procedures lasted between 15 and 90 minutes with a mean of 51.60±21.35 mins SD (Table 4).

Pain was the commonest problem and it was encountered in all patients in the immediate post-operative period (Table 5). The pain scores using a three point verbal rating scale are as shown in Table 6.

Table 6

Post operative pain rating (VRS)

Score	Immediate Post op.	POD 1	1st clinic (4-8 days)	2nd clinic (11-16 days)
No pain	–	5	48	58
Mild	9	40	17	9
Moderate	36	20	2	0
Severe	22	2	0	0

Table 7

Post operative complications

Complication	No. of patients	%
Haematoma	1	1.5
Wound infection	4	6.0
Haemorrhage	2	3.0
None	60	89.5
Total	67	100

Table 8

Acceptability of the day case surgery

Acceptability	No. of patients	%
Yes	60	89.5
No	3	4.5
Indifferent	4	6.0

Immediate post-operative analgesia was prescribed in all cases. Dipyrone injection was administered in 20 patients (29.8%), pentazocine injection in six patients (8.9%), and 67 patients (100%) were given oral paracetamol to take home. Complications occurred in seven patients (10.5%) (Table 7). Four (6.0%) had wound infection, two (3.0%) haemorrhage, one (1.5% haematoma. No patient had to be re-admitted as a result of a complication. There was no death. Of the 67 patients, 60 (89.5%) approved of the short stay surgery, three (4.5%) were dissatisfied and four (6.0%) were indifferent (Table 8).

DISCUSSION

This study was able to demonstrate that day care surgery in suitably selected patients is practicable and acceptable in our semi-urban setting. The concept of home convalescence after surgery is not new in the western world(1,2,7,8,10,13). It seems to have first started gaining widespread acceptance in the West African sub region within the last two decades. Whereas in North America and Europe, a large number of major cases are being operated as day cases(10,16-18), only what could stand as selected minor or intermediate operations have been reported in previous works from this sub-region of the world(11-15). In this series, the mean age as well as the range were similar to various reports from India, Europe and North American(7,19,20,21). Although, our patients could not satisfy all the guidelines prescribed by the Royal College of surgeons(22) or suggested by Jarrett(23), we were able to stick to those with pre-operative ASAI and II. This was to reduce complication rates since social and home medical or nursing support was virtually unavailable.

More than 80% of the patients lived within 10km from the hospital. All the patients had home family support. These two factors gave us the impetus to try to operate on a wider range of surgical problems than previous Nigerian workers(11,14,15), thereby emulating what operates in some Western district hospitals(24,25).

The duration of more than 75% of the operations was within 15 - 60 minutes. This very well satisfies the general guideline(22) and hence favours the practice. Pain which was the commonest problem occurring in the immediate post operative period was found to have petered off by the fourteenth post-operative day. The post-operative analgesia administered must have helped the patients in taking care of the pain.

Our complication rate (10.5%) is comparable with most other reports(7,11,14,15,25). There was no mortality. The short stay surgery was highly acceptable both by the parents and adults. The practice presently in Nigeria is focused on efforts to increase operation spaces as well as reducing the burden on hospital service and not necessarily for cheaper costs for the patients. In the United States of America, apart from the above listed advantages, there is the added pressure from re-imbursement organisations (insurance for example) on the patients to go for cheaper healthcare which the short stay provides(26).

Despite the relative lack of good transport, communication system, home doctoring and nursing, the experience of the day case surgeries demonstrated in this study remains encouraging. The low rate of morbidity and re-admission, the non payment of admission fees, absence of separation anxiety or strange environment must have contributed to the added advantage rate. The added advantage of home support from the traditional official extended family system which still exists in these rural or semi-urban areas will surely go a long way to help in the practice of short stay surgery. It is therefore not surprising that the acceptability rate was high in our series.

It is hoped that this report will encourage practitioners especially those in the semi-urban or rural areas to accept and promote the practice of short stay surgery so as to reduce the cost of surgical treatment of patients. It will go a long way in reducing morbidity and mortality, as fewer patients will have to wait long at home either due to fear of high cost of hospital treatment or long hospital waiting lists.

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