



Abdominoplasty: Initial Experience in University of Calabar Teaching Hospital, South Eastern Nigeria

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Abstract

We present all the cases of abdominoplasty and truncal contouring performed in the university of Calabar Teaching Hospital between January 2016 and December 2021. This is a retrospective study; case notes were retrieved from the medical records department; the biodata and the surgical outcomes was recorded. We had a total of 15 patients and their ages ranged from 30 to 55 years. Most of our patients endured the excessive abdominal apron of fat without seeking medical treatment but presented to the general surgeon for the repair of associated painful external abdominal hernia. Often, it is the general surgeon that refers them to the plastic surgeon. Ten patients had a combination of abdominal fat apron excision and mesh repair of external abdominal hernia, four had only excision of abdominal apron while one had excision of excessive anterior abdominal wall wrinkles. All the patients, except the latter, had partial truncal contouring. Most of the patients were satisfied with the outcome of surgery.

Keywords: Truncal contouring; Abdominal apron; Abdominoplasty

Introduction

Abdominoplasty is excision of abdominal apron of fat by open surgery; it may be total, mini- or either of these two combined with partial or complete truncal contouring. Any of the above forms of abdominoplasty may be combined with liposuction. In total abdominoplasty there is removal of the abdominal apron of fat and translocation of the umbilicus to a new position on the anterior abdominal wall after pulling down the dissected cutaneous tissues [1-3]. In mini-abdominoplasty there is no creation of a neo-umbilicus and in either of these procedures there could be partial or complete truncal contouring [3,4].

Methodology

This is a five-year review of all the patients that presented for abdominoplasty and truncal contouring in the University of Calabar Teaching Hospital between January 2016 and December 2021. The case notes were retrieved from the Medical Records Department and the information extracted was the age, weight, BMI, occupation, indications for surgery, treatment, technical difficulties during surgery, weight of excised specimen, complications, time of discharge from hospital and patient satisfaction. Case notes with incomplete data were excluded from the study [5-8].

Data analysis

We had a total of 16 patients in five years. Thirteen (81.3%) were referred from the general surgeon while 3 (18.8%) presented at the Burns and Plastic Surgery outpatient clinic. All the three patients that presented at the Burns and Plastic outpatient clinic work in a hospital- one is a pediatrician that work in another teaching hospital in Nigeria, one is a doctor that works in the Accident and Emergency unit of our hospital and the third patient is an administrative staff in our hospital. Ten patients were civil servants; four were farmers while two were self-employed. The BMI range from 24.5 kg/m² to 34.0 kg/m² with a mean of 31.2 kg/m². The weight of tissue excised ranged from 1 kg to 5 kg with a mean value of 3.7 kg. The following data show the amount of tissue excised and the corresponding BMI of the patient (Table 1).

The data in Table 2 shows a direct relationship between the BMI and the tissue excised at surgery. Using the Pearson's correlation formula to calculate the P-value gives 0.00001 (P>0.00001), this is a significant P-value because it is less than 0.005, it may be stated that the higher the BMI, the higher the tissue that will be excised at surgery.

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Table 1: Table of data.

S/N	Age	Occupation	Mode of admission	Complications	Length of hospital stay (Days)	BMI	Weight of tissue Excised. (kg).
1	36	CS	GS	-	14	30.0	3.0
2	34	CS	BPU Clinic	-	10	32.0	4.0
3	50	CS	GS	-	10	31.0	3.5
4	45	SE	GS	Seroma	10	32.0	4.5
5	42	CS	GS	Wound infection.	14	30.5	3.0
6	41	CS	GS	-	10	31.0	3.8
7	40	FM	GS	-	9	32.0	4.2
8	35	CS	GS	Hypertrophic scar.	10	32.0	4.3
9	37	CS	BPU Clinic	-	9	34.0	5.0
10	39	SE	GS	-	9	33.5	4.7
11	51	FM	GS	-	10	31.0	3.2
12	48	CS	GS	Hematoma.	14	30.4	3.3
13	42	CS	GS	Wound infection.	14	31.4	3.5
14	38	FM	GS	-	10	32.3	4.0
15	39	FM	GS	-	10	31.5	4.2
16	35	CS	BPU Clinic	-	9	24.5	1.0

CS: Civil Servant; FM: Farmer; SE: Self Employed; GS: General Surgeon; BPU: Burns and Plastic Unit

Table 2: BMI and the amount of tissue excised.

BMI	Weight of tissue excised
30.0	3.0
32.0	4.0
31.0	3.5
32.0	4.5
30.5	3.0
31.0	3.8
32.0	4.2
32.0	4.3
34.0	5.0
33.5	4.7
31.0	3.2
30.4	3.3
31.4	3.5
32.3	4.0
31.5	4.2
32.3	4.0
31.5	4.2
24.5	1.0

Table 3: Distribution of patients in three occupations.

Civil servant	10
Farmer	4
Self employed	2

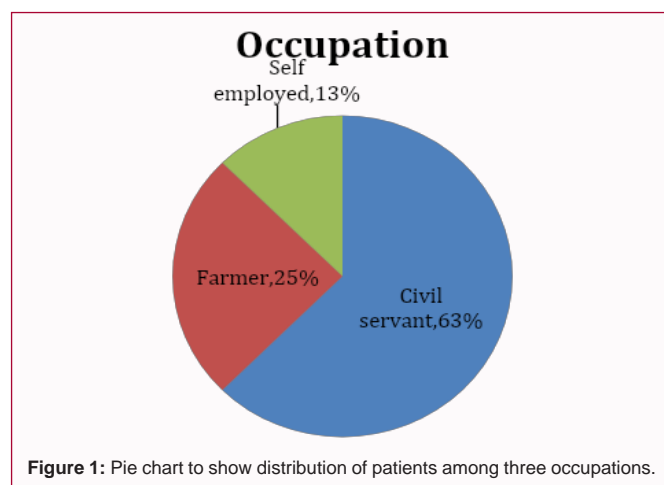


Figure 1: Pie chart to show distribution of patients among three occupations.

Table 3 and the pie chart below show the distribution of patients in three different groups of workers.

Postoperative complications include wound infection, seroma and hematoma formation and hypertrophic scar. Hence, there were five different complications, giving a complication rate of 31.3%. The high complication rate may be due to the small sample size. Other workers, though they had various complication rates, had similar types of complications [9-12]. The duration of hospital stays from the day of surgery range from 9 to 14 days. The surgeries were done by the same surgeons and all our patients received antithrombosis-subcutaneous clexane 40 mg daily and antibiotics ceftriaxone 1 g daily

for five days postoperatively.

Discussion

We do not have many patients presenting for abdominoplasty- only 16 patients presented in 5 years; an average of 3.2 patients in a year for a hospital that sees patients in a state with a population of over three million people (3,737,517) by the census of the year 2016 and our hospital also receive patients from other Nigerian states and the Cameroun. For instance, the patient that had only anterior abdominal wall wrinkles came from another state.

In our series we did not combine abdominoplasty with liposuction, all our patients were females and although three patients had mild to moderate hypertension, we neither took this or any other chronic illness into consideration in our analysis. Abdominoplasty



Figure 2: Sample Preoperative picture.



Figure 3: Sample postoperative picture showing neo-umbilicus and transverse lower abdominal scar of abdominoplasty which continues posteriorly as partial truncal contouring scar.

can be classified according to the type of incision-transverse, vertical or combined- all our patients had a transverse incision.

Most of our patients 13 (81.3%) were referred to us by the general surgeon where they presented with painful external anterior abdominal wall hernia. In most of these patients, although the plastic surgeon would want to do both abdominoplasty and herniorrhaphy, the referring general surgeons insisted on repairing the hernia, thus it became a combined team procedure. It is noteworthy that only hospital workers presented to the plastic surgeon directly in this series. This suggests that enlightenment or knowledge of the availability of this service is a factor in determining where the patients present. Besides, since the patients presented mainly to the general surgeon with associated painful external anterior abdominal wall hernia, it may be assumed that patients with asymptomatic excessive anterior abdominal wall apron of fat would continue to endure this aesthetic problem. This may explain why we have only a few patients in the 5 years under review.

The common complications include wound infection 2 patients (12.5%), seroma formation one patient (6.3%), hematoma formation one patient (6.3%), and hypertrophic scar formation one patient (6.3%). The complication rate in this study may not be statistically significant because of the small sample size but other workers had similar complications [12-15].

The amount of tissue excised at these surgeries generally increase with increase in the BMI. Most of the patients were satisfied with the result of surgery; the patients' spouses were especially excited with

the outcome of surgery because most patients had to change their ward-robe completely- wearing new smart clothes. Although three patients had mild to moderate hypertension, the presence of these comorbidities was not taken into consideration in this study.

Conclusion

Most of the patients presenting for abdominoplasty to the plastic surgeon in our center are referred from the general surgeon and they come to hospital because of painful abdominal hernia. Awareness programs to the society may encourage people with painless excessive abdominal apron in our community to present for abdominoplasty.

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