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Head and Neck Complications from Traditional Surgeons' Procedures: A Tertiary Health Hospital Experience in a Developing Country

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Abstract:

Background

Unsupervised and unscientific practices of traditional surgeons is very common in most African countries; such practices can be life-threatening complication(s)

Aim: to describe the indications, complications, and outcome following traditional surgeon's procedures

Materials and Methods

A retrospective study of patients admitted to the Department of Otorhinolaryngology of the Usman Danfodiyo University Teaching Hospital, Sokoto, Nigeria, following traditional surgeon's procedures from October 2005 to September 2016.

Results

A total of 29 patients were seen, all of which were of low socioeconomic status (16 males and 13 females). The majority of the patients 20 (69%) were below the age of 10 years (75% of these were below the age of 3 weeks). The age ranged from 1 day to 60 years with the mean age of 10.7 ± 16.8 years. Throat conditions 18(62.1%) and neck swellings 6(20.7%) were the main indications for traditional surgeons' procedures. Traditional uvulectomy 18 (62.1%); especially for neonates 16(88.9%) and incision and drainage of any neck swellings 6(20.7%); 4 of these were malignant neck masses, were the main procedures carried out by the traditional surgeons. Twenty-five patients (86.2%) had various complications: anaemia from haemorrhage 13 (52%), septicemia 4(16%), cervical necrotizing fasciitis 3(12%) and acute renal failure 1(4%) from hemorrhagic shock were some of the complications noted. Six (24%) of these patients died from the complications especially from the septicemia 3(12%).

Conclusion

Traditional surgeons' indications for treatment in misdiagnosed head and neck conditions and the procedures carried can lead to life-threatening complications(s) with an unfavourable outcome

Keywords: *Traditional healers, complications, outcome*

1. Introduction

The first health care contact level is the primary health care system.¹ In the rural areas, the first contact may be the health centre, health sub-Centre and the private practitioner.¹ In the African continent, up to 80% of African population patronises traditional healer for their health care needs¹: because of the low socioeconomic status of the patients involved² and the rising poverty level in most of the African countries such as Nigeria, with the poverty level as high as 72%.³

Traditional surgeons perform various head and neck procedures including incision and drainage of abscesses,⁴ uvulectomy,⁵ tonsillectomies,⁶ tooth extractions.⁷ However, complication may arise from such procedures such as severe haemorrhage with associated shock, septicemia, necrotizing fasciitis and death.^{5,8,9}

Isolated head and neck procedures by the traditional healers with associated complications have been described in the literature.^{5,7,9-11} However, there is a dearth of information on the various head and neck complications from the traditional surgeons' head and neck procedures. The aim of this study is to describe the socioeconomic status of the patients, indications for such procedure, complications, and outcome following traditional surgeon procedures

2. Materials and Methods

A retrospective study of patients admitted to the Department of Otorhinolaryngology of the Usman Danfodiyo University Teaching Hospital, Sokoto, Nigeria, following head and neck traditional surgeons' procedures from October 2005 to September 2016.

Data retrieved from the medical records include patients' biodata, indication for the procedure(s), complications, outcome and the socioeconomic status based on the scoring system proposed by Olusanya et al.¹² for Nigeria and Other developing countries. Therefore, for this study, socioeconomic status was obtained based on the patients' educational and occupational status (for nondependent patients) and for patients who depend on their parents for welfare: the socioeconomic status of such patients was based on the fathers' occupation and the mothers' educational attainment. Social classes 1 and 2 connote upper class, social class 3 represents the middle class, while social class 4 and 5 imply the lower class on the socioeconomic status.

Inclusive criteria were patients admitted with complications following traditional surgeons' procedures and excluded from the study were not Otorhinolaryngological procedures carried out by the traditional healer such tooth and cataract extractions.

Data were analysed using SPSS version 21

3. Results

A total of 29 patients were seen; 16 (55.2%) males and 13 (44.9%) females (ratio of 1.2:1). All the patients were of low socioeconomic status. The majority of the patients 20 (69%) were below the age of 10 years (75% of these were below the age of 3 weeks) as shown in figure 1. The age ranged from 1 day to 60 years with the mean age of 10.7 ± 16.8 years. Throat conditions 18 (62.1%) was the main indications for traditional surgeons procedures, followed by neck swellings 6 (20%), discharging ears 3 (10.3%) and suspected oesophageal foreign bodies 2 (6.9%) as shown in Table 1.

Throat and neck procedures and their indications

Traditional uvulectomy 18 (62.1%) was the most common procedure carried out by the traditional surgeons. Other procedures include incision and drainage of any neck swellings 6 (20.7%) as shown in Figures 2 and 4.

3.1. Ear Procedures and the Indications

Shaking of the patients' head to allow pus to flow out from the affected ear(s) 3 (10.3%) and with subsequent application of medications such as gentian violet (Table 1 & Figure 3).

3.2. Esophageal Procedures and the Indication

Incantations to remove a suspected oesophageal foreign bodies (Table 1).

Complications of the traditional Surgeons procedures

Twenty-five (86.2%) patients had various complications from such procedures: anaemia from haemorrhage 13 (52%), a patient developed acute renal failure from hemorrhagic shock, septicemia and wound infection 4 (16%) respectively and cervical necrotizing fasciitis 3 (12%) as shown in Table 2 and Figure 4. Overall, six (24%) mortalities were recorded from these complications most especially from patients who developed septicemia 3 (50%), and another recorded mortalities include cervical necrotizing fasciitis 2 (33.3%) and from acute renal failure 1 (16.7%).

4. Discussion

Patronization of traditional healers (surgeons) is common among patients with low socioeconomic status, and the stated reasons include beliefs in the effectiveness and continuity of their treatment.¹³ However, poverty also plays a big factor, in that decreasing income is associated with increased use of traditional health care system.^{2, 13, 14} This could explain why all of our patients who patronised traditional healers in this study, were of low socioeconomic status.

Traditional healers' procedures are commonly carried out on children, especially those in the first decades of life^{2, 15}. A prospective survey study on the parental reasons of traditional uvulectomy in children under the age of 15 years, by Isa et al², showed that the majority were below the age of 10 years. Their findings are similar to this present study which was a hospital based, with a small sample size.

Uvulectomy is one of the commonly reported procedures carried in the head and neck by the traditional healers^{2, 5, 15-17}, especially in children,^{5, 15} in which the procedure is usually carried out in the first seven days of life^{5, 17}. The observations from these researchers could explain why the majority of the complications observed in this study were from traditional uvulectomy.

Incision and drainage for any neck swelling irrespective of its etiology are one of the practices of traditional healers in most of the developing countries.^{4, 18} This practice will further worsen the already poor prognosis of African patient(s) with advanced malignant head and neck swellings¹⁸. Incision and drainage were the next common procedure recorded in this study; four of six patients with neck swellings were malignant, and hence, the need to create public awareness is very important especially to the traditional surgeons.

Complications from traditional surgeons unconventional procedures can be associated with high morbidities and mortalities⁵ especially when the patient did not seek immediate treatment in recognised hospitals. Most studies reported haemorrhage as the most common complication.^{4, 5, 15, 1}

One of the commonly reported complications following traditional surgeon procedures is usually haemorrhage.^{4, 5, 15, 19} This is in support of the high rate of haemorrhage encountered in this study.

The use of unsterilized instrumentations, the risk of infections is very high.⁵ In mild infections will lead to simple wound infection, and in more complicated forms, septicaemia associated with unfavourable outcome have been reported.^{5, 19} This study reported 75% mortalities from four patients who presented with septicaemia.

Cervical necrotizing fasciitis following trauma has been reported in the literature and can be fatal if not recognised and treated early,^{20, 21} and this could explain the high mortality from cervical necrotizing fasciitis recorded in this present study, predisposed from the initial trauma from instrumentation by the traditional surgeon. Prognosis of our patients with cervical necrotizing fasciitis is further worsened by the low socioeconomic status which prevents patients from seeking appropriate treatment from qualified medical centres. The determination of the complication mortality rate from this present study was limited by small sample size (retrospective hospital-based study) which is not representative of that particular population and hence the need for prospective studies.

5. Conclusion

Patronization of traditional surgeons can be blamed on the low socioeconomic status of the patients involved. The infection as a complication carries high morbidity and mortalities. Hence the need for governments in collaboration with the health institutions, especially the third world countries, to enlighten the public to seek conventional treatment in a recognised health institution and this is achievable by meaningful improvement of the socioeconomic status of the populace.

6. References

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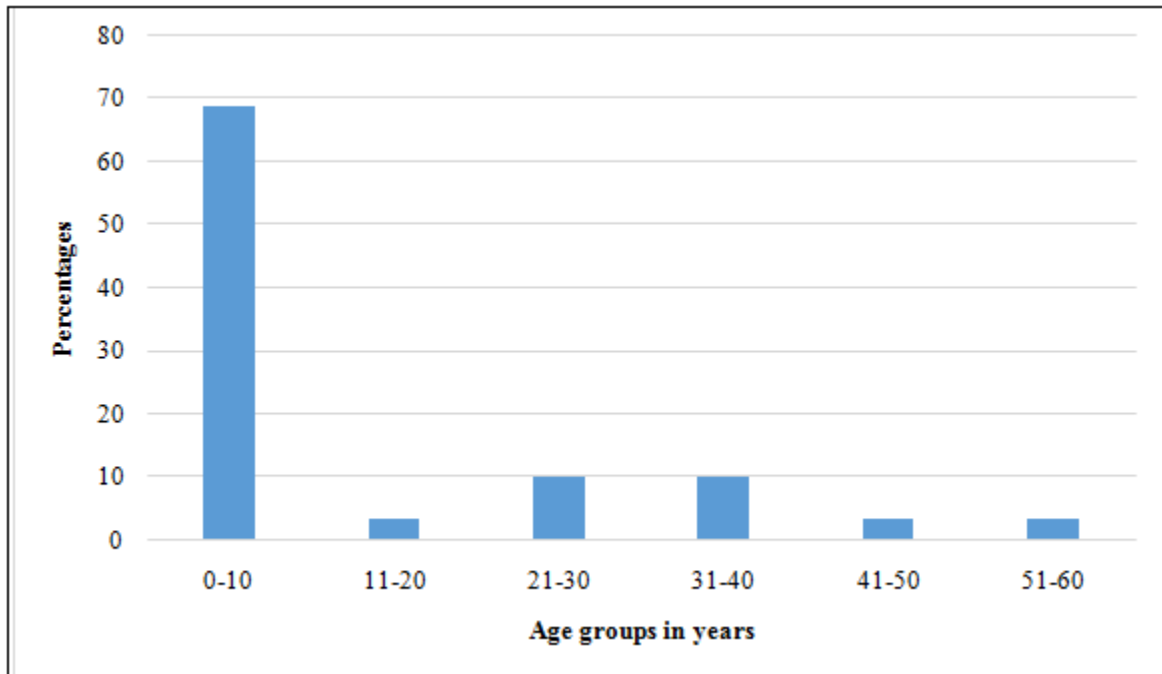
Annexure

Figure 1: Age distribution of patients with head and neck complications following traditional surgeons' procedures

No of Patients (%)	Indications	Procedures
18 (62.1)	Throat conditions i. Sore throat 10 (55.6%) ii. Family tradition 4 (22.2%) iii. To improve speech 2 (11.1%) iv. Cough 2 (11.1%)	Traditional Uvulectomy
6 (20.7%)	Neck swelling 1. Malignant 4 (66.7%) Abscess 2(33.3%)	Incision and drainage
3(10.3)	Discharging ears	Head shaking to allow pus to flow out and subsequent application of concoction
2(6.9%)	Esophageal foreign bodies	Incantation
TOTAL = 29		

Table 1: Indication and procedure carried out by traditional healers

No of Patients (%) (N= 25)	Complications	Outcome
13 (52%)	Hemorrhage 1. Without shock 12 (92.3%) 2. With shock complicated with acute renal failure 1 (7.7%)	All survived Died (7.7%)
4 (16%)	Severe septicemia	Died 3 (75%)
4 (16%)	Wound infection	All survived
3 (12%)	Cervical necrotizing fasciitis	Died 2 (66.7%)
1 (4%)	Mastoid abscess	Survived

Table 2: Complications and the outcome following traditional healers' procedures



Figure 2: a patient who had incision and drainage complicated with haemorrhagic anaemia



Figure 3: a child with ear discharge managed with traditional concoction and gentian violet complicated with a mastoid abscess

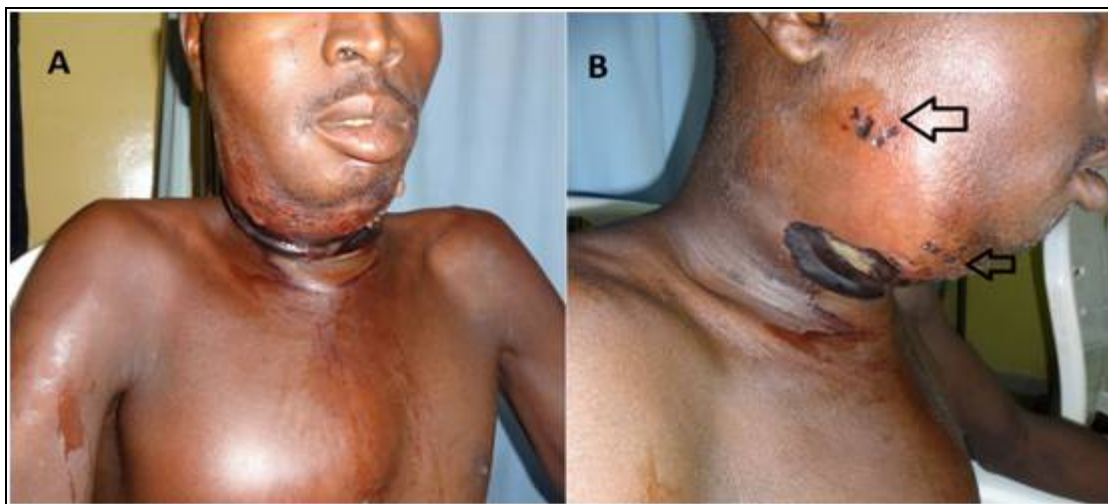


Figure 4: Cervical necrotizing fasciitis with chest wall extension (A). The same patient is showing multiple puncture wounds (arrows) for the purpose to drain a submandibular swelling (pleomorphic adenoma) which was thought to be an abscess (B).