Traditional bonesetters in South Western Nigeria – Friends or Foes?

***T. O. Alonge[1], A. E. Dongo[2], T. E. Nottidge[1], A. B. Omololu[1] and S. O. Ogunlade[1]**

[1]Division of Orthopaedics and Trauma and
[2]Division of Endocrine Surgery, Department of Surgery
College of Medicine, University of Ibadan, Ibadan.
E-mail: alonge@skannet.com

Summary

Objective: **To highlight the dangers inherent in the practice of traditional bone setting in South Western Nigeria as evidenced by the preventable complications that accompany treatment of fractures, joint dislocations and limb deformities by traditional bonesetters (TBS).**

Method: **Twenty-five consecutive patients with fractures, dislocations and limb deformities who had been previously managed by TBS and who subsequently presented to the University College Hospital, Ibadan (on account of complications from treatment at the TBS) between 1st October 1999 and 31st March 2000 were evaluated.**

Result: **Fourteen patients had fracture non-union or malunion necessitating open reduction and internal fixation. Two patients with wet gangrene of the extremities had amputations.**

Conclusion: **Traditional bone setting is an ancient trade practiced in Nigeria and most developing countries without government regulations and they lack guidance. The complications that accompany these practices are unacceptable and it is imperative that there should be legislation to curb their activities and save the unsuspecting public from further harm or even death.**

Keywords: ***Traditional bonesetters, Osteomyelitis, Fracture non-union, Chronic hip dislocation, Volkmann's contracture.***

Résumé

Objectif: Souligner les dangers inhérents dans la pratique de la réduction traditionnelle d'os au sud ouest du Nigeria comme témoigné par des complications évitables qui accompangent le traitement des fractures, déboitement d'articulation et déformité du membre par des traditionalistes engagés dans le recollement d'os (TERO).

Méthode: Vingt cinq malades consecutifs avec des fractures, dislocations et déformités du membre qui avaient été traités auparavant par TERO et qui s'étaient par la suite presentés au collège hospitalier universitaire, Ibadan (en raison de complications à la suite du traitement chez TERO) entre le premier octobre 1999 et 31 mars 2000 ont été évalués.

Résultst: Quatorze malades atteints de la fracture non-union ou malunion qui avaient rendu nécessaire la reduction ouverte et la fixation interne. Deux malades atteints de la gangrene mouillée dans les extrémités ont subi des amputations.

Conclusion: La reduction traditionnelle d'os est un metier ancien exercé au Nigeria et dans le plupart des pays en voie de développement sans le réglement du gouvernement et ils manquent la direction nécessaire. Des complications causés par ce metier sont inacceptables et il est impératif qu'il ait une legislation qui pourrait frainer leurs activités et garder le pauvre public du mal supplementaire ou même de la mort.

Introduction

Nigeria is the most populous black nation in the world with a population of almost 120 million people and like most developing countries; it is plagued with a high load of trauma and concomitant fractures and dislocations[1]. In Nigeria, two systems of health care, traditional and western style medical practices were the mainstay of health care delivery in the country[2]. However, in modern times, prayer houses and spiritualists are becoming health care providers with disastrous consequences and their practices are also on the increase. These three systems unfortunately coexist and their patronage has no bearing on the level of education of the patients although patients in the lower socio-economic class tend to patronise the traditional practitioners more often than the elites. This has to do more with the traditional beliefs, easy accessibility of the populace to the traditional practitioners and the presumed relatively 'cheaper' cost of health care that they provide.

The traditional treatments of psychiatric and obstetric patients have been documented among the Yorubas in Southwestern Nigeria[3]. Bone setting skills in traditional medical practice is acquired from the parents or grandparents of the practitioners[4] (who were themselves traditional bone setters) and more often than not, these practices are reminiscent of Hippocratic techniques of managing fractures.

The aim of this study was to focus on the scope of practices embarked upon by the TBS in the management of fractures, dislocations and limb deformities and to highlight the dangers and complications of these crude unethical practices.

Case series

This was a retrospective study of all the cases of fractures, dislocations and limb deformities managed by TBS and subsequently referred to the orthopaedic and trauma surgical out-patient clinic of the University College Hospital (UCH), Ibadan over a six month period (1st October 1999 – 31st March 2000). In all, there were 25 cases, 19 males and 6 females. During this same period 464 new cases were seen in the outpatient clinic of the orthopaedics and trauma division of the hospital.

Result

The upper limb was the site of trauma or dislocation in 7 cases whilst the lower limb was affected in 18 cases. The underlying injuries or clinical conditions antedating treatment by the TBS are shown in Table 1. The various treatments offered the patients by the TBS (in combinations) were dominated by stretching and strapping of the injured limb in bamboo or 'rafia' straps. The average interval between the

* *Correspondence*

Table 1 25 Patients previously managed by Traditional Bone Setters (TBS)

S/N	Age	Sex	Initial diagnosis	Management by TBS	Treatment Interval	Complication
1	38	F	Open tibia and fibular fracture	Stretching and strapping	5 weeks	Chronic leg ulcer
2	23	M	Hip dislocation + close ipsi lateral femoral fracture	Stretching and strapping	52 weeks	Chronic hip dislocation and fracture malunion
3	16	M	Open tibia and fibular fracture	Stretching and strapping	2 days	Chronic osteomyelitis
4	71	F	Fracture neck of femur	Stretching and strapping	36 weeks	Non-union
5	13	M	Open femoral fracture	Stretching and splintage	2 weeks	Tetanus and malunion
6	51	F	Close femoral fracture	Stretching and strapping	12 weeks	Non - union
7	25	M	Elbow dislocation	Splintage	9 weeks	Chronic elbow dislocation
8	70	M	Fracture neck of femur	Massaging	36 weeks	Non - union
9	80	F	Fracture humeral neck	Splintage	5 weeks	Non - union
10	4	M	Rickets with bilateral genu valgum	Splintage and bandaging	Unknown	Pressure sores
11	24	F	Close femoral fracture	Stretching and strapping	68 weeks	Non - union
12	31	M	Hip dislocation (posterior)	Suturing of latrogenic incision	28 weeks	Chronic hip dislocation and sciatic nerve palsy
13	6	M	Ulnar and radial fracture	Strapping	1 week	Forearm gangrene
14	29	M	Close femoral fracture	Stretching and strapping	150 weeks	Non - union
15	7	F	Close femoral fracture	Splinting and strapping	4 weeks	Malunion
16	7	M	Close humeral supracondylar fracture	Splinting and strapping	Unknown	Compartment syndrome and Volkmann's contracture
17	25	M	Close tibia and fibula fracture	Splinting and strapping	4 weeks	Gangrene of the leg
18	32	M	Hip dislocation (posterior)	Stretching and strapping	60 weeks	Chronic hip dislocation
19	11	M	Close femoral fracture	Stretching and strapping	16 weeks	Malunion
20	27	M	Open femoral fracture	Stretching and strapping	25 weeks	Malunion
21	29	M	Close humeral fracture	Stretching and strapping	19 weeks	Non-union
22	15	M	Open tibia and fibular fracture	Stretching and strapping	24 weeks	Chronic osteomyelitis
23	4	M	Close humeral supracondylar fracture	Splinting and strapping	3 weeks	Volkmann's contracture
24	45	M	Close tibia and fibula fracture	Splinting and strapping	44 weeks	Malunion
25	35	M	Close humeral fracture	Splinting and strapping	10 weeks	Non-union

Fig. 1a. *A photo-radiograph (AP view) of the right femur in a 29-year bus driver who developed atrophic non-union with severe disuse osteoporosis after 2 years of treatment at the TBS.*

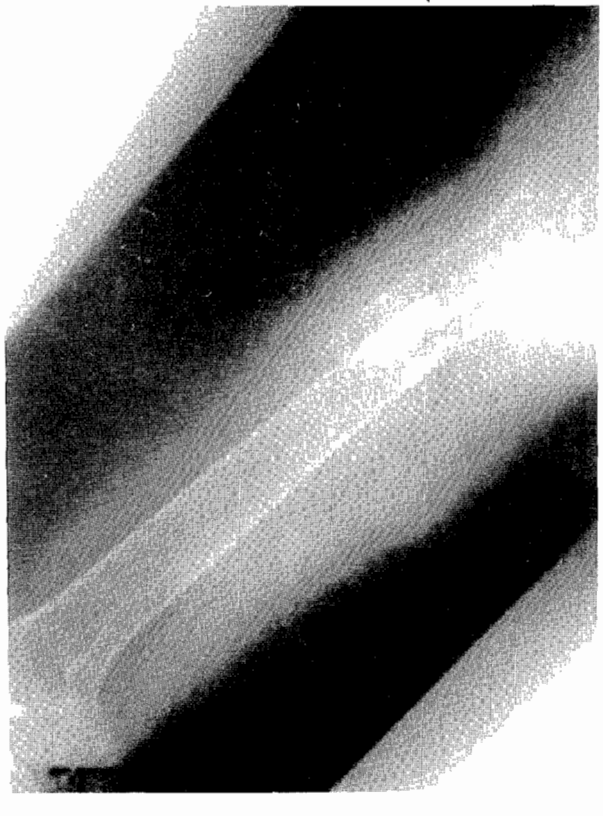

Fig. 1b. *The lateral view of the same patient in Figure 1a showing marked over-riding of the bone fragments.*

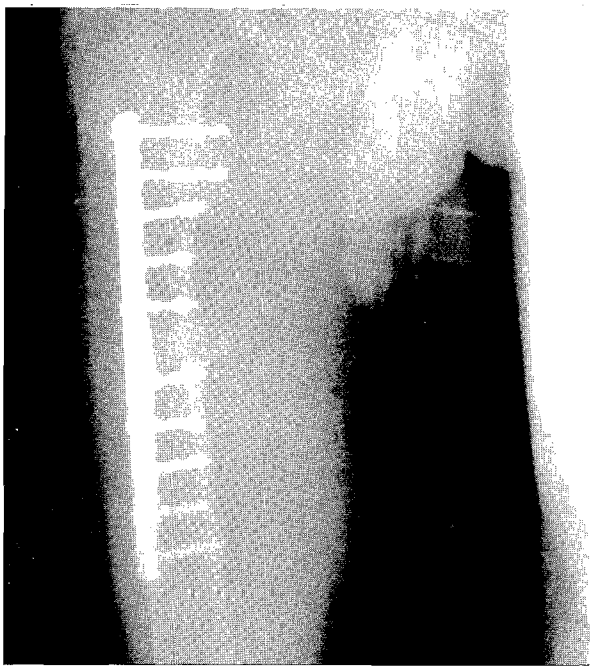

Fig. 2a. *A photo-radiograph (AP view) of the same limb after open reduction and internal fixation with plates and screws (preceded by four weeks of continuous skin traction).*

Fig. 2b. *The lateral view of the same patient in Figure 2a showing good alignment.*

time of onset of treatment at the TBS and review at the UCH (in 23 cases) was 27.8 weeks (2 days -150 weeks) and the interval was unknown in two cases (see table 1). The complications encountered in these patients following review at the UCH are as shown in Table 1 with fracture non-union found in 8 patients. All the patients with fracture non-union (8) and fracture mal-union (6) subsequently had open reduction and internal fixation (Figures 1 and 2).

Discussion

Traditional bone setting is often a family–centred practice where the father hands over the acts to his son[4]. The length of apprenticeship is often variable as the children who outlive their fathers ultimately take over the practice. This pattern of training ultimately leads to a continuous decline in knowledge being imparted and makes the practice even more dangerous. However, in spite of this, many Nigerians still patronise them bearing in mind that no matter what was offered them, they (patients) will not be subjected to any form of surgery with a risk of losing their lives or limbs.

From this study, the fear of amputation, which was given as a drawback to accepting referral to teaching hospitals like the UCH[4] was carried out in 2 patients who had complications (gangrene of the forearm and leg) following treatment at the TBS. There is no doubt that the magnitude of the complications encountered following the treatment of relatively simple injuries by TBS are alarming[5,6]. Furthermore, the act of camouflaging their practices by inculcating certain procedures that are peculiar to the orthodox western medical practices (for example suturing of wounds without aseptic technique) as was seen in one patient (case number 12) is unacceptable. These exclusive practices help to enhance the acceptability of the treatments that they (TBS) offer and therefore drum up support for the higher prices of the treatments they offer to their teaming uninformed customers, who incidentally cut across every social and academic class in Nigeria[7]. However, with continued improvement in health education, trauma care and public enlightenment in Nigeria, the preference for the orthodox western trained orthopaedic and trauma Surgeon continues to increase particularly in the localities with easy access to such care[8].

The use of non-standardized techniques among TBS[4] in our environment and the hoarding of information surrounding their practices make it difficult to compare these practices on a more global and objective scale. The method adopted by the Chinese traditional bonesetters[9], is not at the same level as our TBS.

Conclusion

Regardless of the economic situation, developing countries should legislate against the issuance of licences to individuals or groups of people who are not qualified to practice medicine. Often times these practices compound the patient's otherwise simple problems and many have lost their limbs and even their lives because of the treatment given by these unlicensed practitioners.

References

1. Oni OOA, Orhewere FA. Per-cutaneous pins and external fixation of compound fracture of the tibia: The Benin experience. Nig. Med. J 1982; 12: 255 – 257.

2. Ademuwagun ZA. The relevance of Yoruba medicine-men in public health practice in Nigeria. Pub. Health. Rep. 1969; 84: 1085 – 1091.

3. Osuntokun B.O. The traditional basis of neuropsychiatric practice among the Yorubas of Nigeria. Trop. Geog. Med. 1975; 27:422 – 430.

4. Oyebola DDO. Yoruba traditional bonesetters: The practice of Orthopaedics in a primitive setting in Nigeria. J. Trauma.

1980; 20: 312 – 322.

5. Garba ES, Deshi PJ. Traditional bone setting: a risk factor in limb amputation. East Afr. Med. J. 1998(Sept.); 75: 553 – 555

6. Onuminya JE, Onabowale BO, Obekpa PO, Thezue CH. Traditional bone setter's gangrene. International Orthopaedics. 1999; 23: 111 – 112.

7. Thanni L.O. Factors influencing patronage of traditional bonesetters. West Afr. J. Med. 2000 (Jul – Sept); 19: 220 – 224.

8. Ademuwagun Z.A. The challenge of the co-existence of orthodox and traditional medicine in Nigeria. East Afr. Med. J. 1976; 53: 21 – 32.

9. Smith J.A. Best of the old and the new. Br. Med. J. 1974; 2: 367 – 370.