

Complications of Fracture Treatment by Traditional Bonesetters

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ABSTRACT

Objective: To find out frequency of different complications in patients that has been managed by traditional bonesetters (TBS).

Methods: This study was conducted from 1st October 2013 to 31st March 2014. Total 60 patients who presented at orthopedics out-patient clinic after treatment of traditional bone Setters were recruited for the study. Information about the patients' biodata, mechanism of injury, which advised them to contact TBS and complications after being managed by TBS were obtained. All the data thus obtained was put into and analyzed on SPSS version 17.

Results: The mean age of 60 patients were 25.57 years with minimum 5 and maximum age was 65 years. Sixteen patients were females and 44 were male. Two (3.3%) of patients first attended Hospital and 58(96.7%) patients attended TBS. There were 51.7% mal-union, 31.7% non-union, 6.7% contracture and 6.7% gangrene and 3.3% developed infections.

Conclusion: Mal-union/non-union, contractures and infections are the most common complications that patients are likely to suffer as a result of fracture treatment by TBS.

Key Words: Traditional bonesetter (TBS), Treatment, Fracture, Complication.

INTRODUCTION

Traditional medical practitioners like herbalists, bonesetters and religious practitioners are working side by side with modern medical services in Pakistan. Traditional bone healers were present since the introduction of modern medicine in developing countries [1,2]. Nowadays, Modern and traditional medicines are working side by side but bone setting is still more commonly practiced in most poor countries of the world [3].

This Practice is a specialty [4], which usually transferred from father to son. In rare cases other people can be trained via apprenticeship [3]. Almost in every society of the world in its evaluation, has some form of TBS [1]. The bases of continued practice of TBS are poverty, ignorance and superstition despite complications [3,5]. However, there is a belief that it is cheaper, more readily available and results in faster healing than modern services.

There are multiple complications and gangrene occurs in treated arms or legs due to prolonged

pressure of tight bandages used for management of painful joints, sprains or fractures. The end result of such management is amputation of limb of the patient with lifelong disabilities [5].

Other commonly reported complications include non-union, mal-union, contractures, osteomyelitis, and limb shortening [6]. Instead of these complications, still patients prefer TBS, and in some instances patients leave orthodox hospitals and go to TBS. This may be due to ignorance, cultural beliefs, quicker and cheaper services, third-party advice, and the fear of amputation at modern hospital [3,4].

Some fractures do heal properly with treatment by TBS, however they do not know the real complications of TBS practices [6,7].

Traditional Bone Setters often use splits made from strips of wood tightly bound around the limb [7], which may not be removed when pain increases after immobilization. Sometimes death may result from complications such as tetanus and septicaemia [8].

To find out frequency of different complications in patients that has been managed by traditional bone setters (TBS).

METHODS

This observational study was conducted from 1st October 2013 to 31st March 2014. Total 60 patients who presented at out-patient clinic after attending

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Traditional Bone Setting Centers were recruited for the study. Information about the patients' biodata, mechanism of injury, which advised them to contact TBS and complications after being managed by TBS were obtained. All the data thus obtained was put into and analyzed on SPSS version 17.

RESULTS

The mean age of 60 patients was 25.57 years with minimum 5 and maximum 65 years. Sixteen (26.7%) patients were females and 44(73.3%) were male (Table No. 1). Intertrochanteric fracture hip was 6(10%), Fracture neck of femur was 6(10%), Fracture radius and ulna was 10(16.7%) Supracondylar (S/C) fracture femur was 3(5%), Fracture shaft of femur was 12(20%), Fracture tibia and fibula was 10(16.7%) and

Supracondylar Fracture of Humerous was 13(21.7%) (Table No. 2).

Sixty percent of patients were due to fall and 40% were due to road traffic accidents (Table No. 3). There were 51.7% mal-union, 31.7% non-union, 6.7% contracture and 6.7% gangrene and 3.3% infections (Table No. 4 and figure No. 1).

Table 1: Gender of Patients

		Frequency	Percent
Valid	Female	16	26.7
	Male	44	73.3
	Total	60	100.0

Table 2: Diagnosis

		Frequency	Percent
Valid	Intertrochanteric fracture hip	6	10.0
	Fracture neck of femur	6	10.0
	Fracture radius and ulna	10	16.7
	S/c fracture femur	3	5.0
	Fracture shaft of femur	12	20.0
	Fracture tibia and fibula	10	16.7
	S/C fracture humerus	13	21.7
	Total	60	100.0

Table 3: Mechanism of Injury

		Frequency	Percent
Valid	Falls	36	60.0
	Road traffic accident	24	40.0
	Total	60	100.0

Table 4: Complications

		Frequency	Percent
Valid	Contracture	4	6.7
	Gangrene	4	6.7
	Infections	2	3.3
	Mal union	31	51.7
	Non union	19	31.7
	Total	60	100.0

Figure 1: Gangrene of Forearm and Hand of a six year old girl treated by bone setter



DISCUSSION

Trauma and Orthopaedic surgeons working in Pakistan like in other developing countries are overburdened by unnecessary complications of fracture being treated by bone setters⁹. The affected individuals and families are pose to physical, economic and social burden, which ultimately affects the society [5].

The mean age of the visitors in the current study was 25.57 years which shows that TBS is mostly preferred by young and adults. Our study showed that 73.3% of the male patients were managed by TBS. This study also showed that males were predominantly injured.

At the time of injury 96.7% patients went to TBS, which is comparable to Ogunlusi et al study where 79.3% of patients were seen initially by TBS [3]. Concomitant life threatening injured patients may have to lose life if such a high percentage of people are managed by TBS [10]

In our study TBS had managed different kind of fractures ignoring the proper protocol for anatomical reduction and alignment. Awareness programs of our society are of utmost importance about the treatment of bones and joints by TBS. A proper health education programs should be initiated in every community about the hazard of TBS [9,10].

Different types of complications had been found in all the patients in our study. There were 51.7% mal-union, 31.7% non-union, 6.7% contracture and 6.7% gangrene needing amputation and 3.3% infections. In 2001, Ola Olorun DA [11] studied 36 patients that had been treated by TBS. In his study complication rate was

83% and the most common were mal-union and non-union. Another study done by Faheem AM et al [12] on the complications of TBS in which he observed 43% of non-union and mal union.

In our study only 2 patients had infection, which is very interesting as bonesetters now prescribe antibiotics as well.

Frequencies of complications are almost same in our series as compared with other studies [13]. Frequencies are higher in our series because we included patients who came to us with complications.

CONCLUSION

Inappropriate management by TBS is the main cause of limb complications, which leads to limb loosing or sometime to life loosing. Patients have a firm belief in the capabilities of TBS and they ignore their complication at large. We should have some awareness programs in which people has to be informed about treatment deficiencies and complications of TBS. To avoid such complications, it is important that their patronization should be discouraged.

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