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CASE REPORT

VOLKMAN'S ISCHAEMIC CONTRACTURE: A SEQUAE TO BONESETTING

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ABSTRACT

The case study has been done to evaluate volkmann's ischaemic contracture (vic) which is one of the common complications caused as a result of bone setting. This paper presents a report of a young male who developed this complication as sequelae of bone setting which led to a permanent disability besides fasciotomy. Such sorts of cases have affectively occurred in nations where medical care services have not been provided to the mark especially in rural area.

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INTRODUCTION

A Traditional Bone Setter (TBS) is a practitioner of joint manipulation. The TBS can also be defined as the practitioner who educates themselves from tradition and takes up the practice of healing without having any formal education or training in the accepted medical procedures. Bone setting practice is common in large parts of rural populations and contributes largely to the alternative medicine, especially in context of Asia, Africa and South America owing to deficient health care services in these developing nations. The functions of TBS mainly include management of fractures, dislocations, congenital Anomalies along with their associated complications. According to an estimate, 10 – 40% of the patients with fractures and dislocations in the world are managed by the unorthodox practitioners (Chowdhury *et al.*, 2011 and Dente *et al.*, 2009). Malunion, nonunion, joint stiffness, Volkman's contracture, compartment syndrome and limb gangrene leading to amputation are some of the reported complications of bone setting (Green, 1999). Besides these complications the faith of the people in bone setting cannot be ignored and the fame enjoyed by bone setters is so much that patients took voluntary discharge from orthodox hospitals to receive treatment from TBS (Hag and Hag, 2010). This paper describes a report of a patient who developed VIC as consequence of bone setting treatment.

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Case Report

The patient was a 20 year old male student who reported to the physiotherapy OPD for management of VIC (Fig.1) which is sequelae of injury and ischaemic damage to the forearm muscles usually after fracture of forearm, resulting in a claw like deformity of the wrist and hand. The patient had a history of left forearm fracture three years back for which he had visited a bonesetter with the faith of receiving quick treatment. The bonesetter had applied some herbal paste over the forearm and then stabilized it with wooden strips followed by strapping. Post strapping the patient developed numbness of the hand followed by a wound. On revisit, the bonesetter told the patient that it was due to the reaction of the medicine and loosened the strapping. A general practitioner gave him some injections for wound healing and suggested that his limb needs to be amputated.

Upon visiting a medical college and hospital, the patient underwent a fasciotomy (a surgical procedure where the fascia is cut to relieve tension or pressure commonly to treat the resulting loss of circulation to an area of tissue or muscle along with open reduction and internal fixation of the fracture (Oyebola, 1980). Now after three years he presented with a deformity and contractures at elbow, wrist and hand and required pre operative physiotherapy for correction of the deformity.



Fig. 1. Volkmann's Ischaemic Contracture

(A sequelae of injury and ischaemic damage to the forearm muscles usually after fracture of forearm, resulting in a claw like deformity of the wrist and hand)

DISCUSSION

Traditional bone setting is a common practice in developing countries and its role in health care delivery cannot be ignored, major reason being the deficient health care services. VIC has been reported to be a complication of bone setting in literature (Green, 1999 and Samuel, 1963). The patient in this study resided in a rural area and belonged to a low socioeconomic status, did not approach a medical practitioner before visiting the bonesetter with the faith of getting quick treatment from the bonesetter. The scarcity and no availability of medical care in remote area has helped local non-qualified practitioners named as TBS to promote their approach among the population.

Regardless of the complications, the faith of people in bone setting cannot be ignored and if proper training and education is instituted to the bonesetter's, they can be of immense help in reducing the load on health care systems of the developing countries by providing valuable services to people.

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REFERENCES

- Chowdhury, M.A., Khandker, H.H, Ahsan, K. and Mostafa, D.G. 2011. Complications of fracture treatment by traditional bone setters at Dinajpur. *Dinajpur Med. Col. J.*, 4(1): 15-19.
- Dente, C.J., Wyrzykowski, A.D. and Feliciano, D.V. 2009. Fasciotomy. *Current Problems in Surgery*, 46 (10): 779–839.
- Green, S.A. 1999. Orthopaedic Surgeons. Inheritors of tradition. *Clinical Orthopedics and Related Research*, 363: 258-263.
- Hag, MIA E.L., Hag, and OBM, E.L. 2010. Complications in fractures treated by traditional bone setters in Khartoum, Sudan. *Khartoum Medical Journal*, 3(1): 401-405.
- Oyebola, D.D. 1980. Yoruba traditional bonesetters: The practice of orthopaedics in primitive setting in Nigeria *J Trauma*, 20: 312-322.
- Samuel, H. 1963. Bone setting, Chiropractic and Culticism. *ChirobaseSM*. Retrieved Jan 14, 2014 from <http://www.chirobase.org/05RB/BCC/07.html>.
