Case Report

Overzealous Prayer House as a New Cause of Irreparable Limb Damage: A Case Report and Review of the Literature

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ABSTRACT

Prayer houses that profess miracles and healing through prayers and vigils abound in our clime, but this case report of irreparable limb damage due to an unprofessional medical intervention by a prayer warrior is new and worrisome. This case is an advanced acute compartment syndrome of both legs which was caused by a prayer warrior who, supposedly, had the inspiration to apply tight splints on the legs of a girl with cerebral palsy so that she could walk.

Key words: Cerebral palsy, compartment syndrome, irreparable limb damage, prayer house

INTRODUCTION

It is very devastating when a patient loses the function of one or more limbs because of unnecessary, unprofessional, medical intervention. The problems caused by traditional bonesetters in our subregion are already a handful, and to be joined by this new trend will further compound the problems for the orthopedic surgeon. Most clinicians are familiar with late presentations of those patients who had visited and stayed in the prayer houses and who are only likely going to suffer the dangers of delayed treatment. A few or none may have seen a wrong, unprofessional medical action from a prayer house leading to a catastrophe as in this index patient. The tight splints which the prayer warrior applied on the legs of this cerebral palsy girl increase the intracompartment pressure in the legs above the threshold that permits normal functions of the neurovascular structures and muscles of the legs. Usually, this occurs following trauma and commonly in the leg compartments following fracture of the tibia.[1-4] Furthermore, the application of tight splints on the limbs of patients by traditional bonesetters in their practice settings is a very common cause of compartment syndrome in our environment.[5] The rise in compartment pressure is commonly associated with clinical symptoms and signs that should not be missed by the clinician. In addition, a clinician should have a high index of suspicion for compartment syndrome when a patient presents with severe pain that is out of proportion to the injury or when a patient presents with any form of splints on the limb, especially from the traditional bonesetters. Early diagnosis is made on the basis of this severe ischemic pain, swelling, tenseness of the leg, cold extremity, and excruciating pain on passive dorsiflexion of the toes, and at this stage, emergency fasciotomy may be the only solution to saving the limb. Delay in the diagnosis or unrecognized prolonged compression will lead to irreversible damage or worse still, limb gangrene that can only be treated by amputation.[6] Clinical method is the gold standard of diagnosis, but intracompartmental pressure measurement is necessary when the clinical features are equivocal and the facilities are available.[4] However, when in doubt, fasciotomy should be performed as the scar of fasciotomy wound[7] is better than any complication that may arise from delayed or misdiagnosis.

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The literature reports traditional bonesetters, diviners, and spiritualists as traditional African medicine practitioners. Some of them practice their arts via the process of occultism and rituals and sacrifices.[8] This art is transmitted through oral tradition and is largely held as a family practice that is passed on from one generation to another.[8,9] Ignorance and belief in supernatural etiologies of illnesses[8] are partly the driving forces in the individuals that patronize them. The diviners are seen as people who cannot do wrong as they are believed to see beyond the ordinary. In their practice setting, they hardly recognize complications of tight splints and in fact attribute patient's pain as evidence of effective splintage. Similarly, a large number of religious patients in our environment go to churches and prayer house ministries for solutions to illnesses which they perceive are due to witchcrafts and sorceries. They believe and trust the prayer warriors explicitly to provide solutions to their problems. For this reason, complications are not recognized on time by the patients. The instruction of not removing a tight splint that is of course not backed by any medical knowledge is obeyed by these patients and by their relatives. Often times, it takes a third party to point out that complications are imminent, and it is at this stage usually that orthodox practitioner is consulted. There are no literature linking modern prayer houses and irreparable limb damage.

This case report intends to create awareness of this group of healers who combine prayers and supposedly divine intervention with unskilled medical knowledge to dispense unnecessary and potentially dangerous treatment to the unsuspecting public. This case is probably the first reported case in this environment.

CASE REPORT

A 2½-year-old girl who had birth asphyxia and who consequently developed delayed milestones and muscle spasticity was brought to our center with painful swollen legs and feet. Her mother complained that because of patient's inability to walk at her age, she was taken to a prayer house thinking that it was a case of spiritual attack. After a prayer session, the prayer warrior claimed that he got inspiration to tie wooden splints on the patient legs, and this he did so that she could stand and walk. However, the patient did not walk rather she started feeling pain and then, crying and restlessness ensued. The mother was asked to give it some time. These services were not free of charge. On the second day, pain, crying, and restlessness continued, and she was taken to a nearby patent medicine dealer who removed the splints and referred the patient to our center.

On examination, she was crying, restless, pale, and febrile. She had muscle spasticity, nystagmus, and saliva drooled from her mouth. The toes were pale, feet, and legs were swollen, and there were pressure marks on them from the splints with skin discolorations and blisters [Figure 1]. The legs were tense and tender. The toes were cold and capillary refill was 5 s. The peripheral oxygen saturation (SpO_2) with toe pulse oximeter was 45% and 55% for the right and left legs, respectively. A diagnosis of acute compartment syndrome of both legs in a cerebral palsy patient was made and the plan was to perform emergency fasciotomies. The hemoglobin was 9.5 g%, and urinalysis was normal. The patient was also later investigated to have AA genotype.

After an informed consent and under general anesthesia, sequential fasciotomies were done on both legs, left before right. Edematous and pale friable muscles popped out as soon as the fascias were incised. On-the-table pulse oximeter, SpO_2 rose to between 88% and 92%. A lot of the muscles in the posterior compartments were necrotic, and hence, they were debrided until fresh bleeds were noticed. Some of the muscle fibers were not contracting, and hence, they were also excised. The wounds were necessarily left open for the pressure to continue to normalize, for further debridement, and for dressing. These were done severally until the wounds granulated over the next 4 weeks. The wounds were later covered with split skin grafts. Postfasciotomy, the patient continued to produce adequate urine and the serum electrolytes urea and creatinine measurements were normal. There was extensive muscle loss that will likely affect rehabilitation [Figures 2 and 3]. The patient was judged a likely candidate to develop Volkmann's contracture in the future, and hence, serial splintage was commenced to limit this possible complication. She was discharged home on the 48th postoperative day. Twelve weeks postfasciotomies, the grafts had consolidated, but there was extensive loss of muscle bulk in the calves

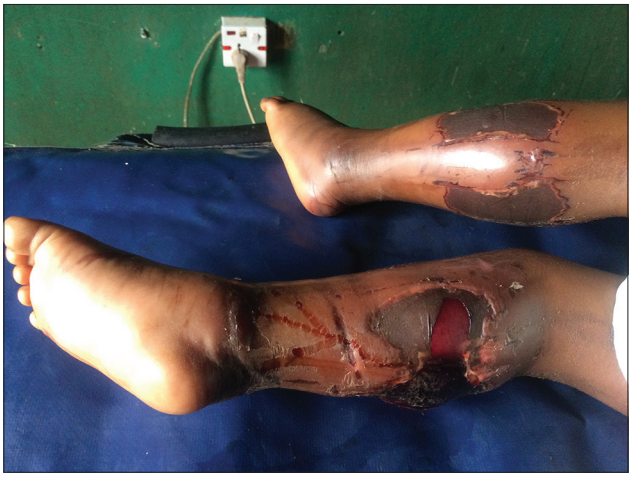

Figure 1: Swollen, shiny legs with pressure marks caused by tight splints, skin discoloration

resulting in marked deformities. The patient was referred to the physiotherapist for splintage and ambulatory exercises [Figure 4].

DISCUSSION

In a highly religious society like ours, the prayer houses and the prayer warriors are mostly trusted explicitly and ignorantly too, to solve unusual health situations. Visiting prayer houses are seen as more decent and acceptable than visiting the spiritualists, diviners, and sorcerers. For this reason and other unknown factors, patronage of prayer houses is on the increase. Should they remain within their mandate of praying, there will be little or no physical injury, but when they introduce unskilled medical practices into their prayer sessions, then, they are likely to cause more harm than good as in our index patient. More often, clinicians witness late presentations of patients who had initially visited prayer houses for prayer sessions and vigils, and who because of the delay, may only suffer poor outcome of their treatments. Active, unprofessional, medical intervention in the prayer houses, though not common and is isolated as in this index patient, still people should be aware of this new trend and it is important not to trust a prayer warrior who has no medical training but claims he or she could perform medical procedures to achieve healing.

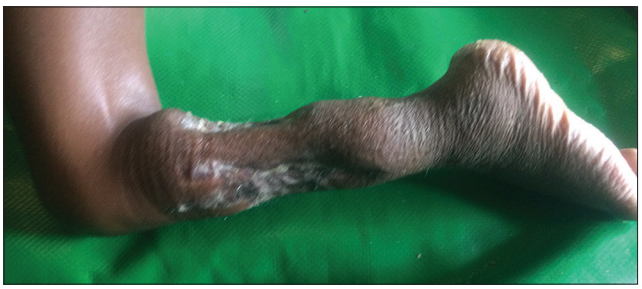

Figure 2: Deformed left leg, following fasciotomy and split skin grafting

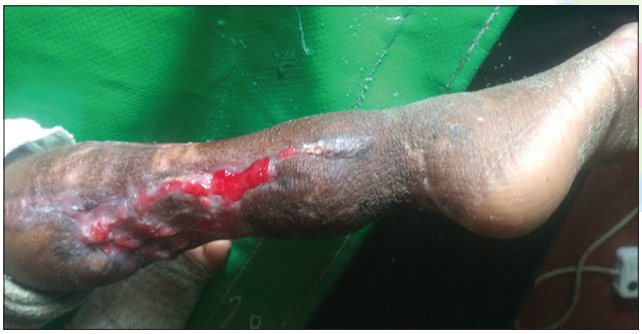

Figure 3: Deformed right leg postfasciotomy and split skin grafting

Figure 4: Three months postfasciotomy, standing exercises also showing deformities and spasticity

The traditional African medicine healers in the form of diviners, bonesetters, spiritualists, herbalists, and iridologists are well known alternative health care providers. Their modus operandi and the menace of these unorthodox health practitioners are also well known.[9,10] The problems they create for the orthopedic surgeons in the areas of limb gangrene, compartment syndrome and cellulitis, and nonunions and malunions in our sub-region are enormous.[11] The joining of prayer houses in the foray will certainly add to the stretch on the available medical facilities and on the man-hour spent on medical complications that ordinarily are completely avoidable. Some authors have recognized that the activities of this group are on the increase in recent time, but there was no linkage with any limb damage.[12] This may be the first reported case in this environment.

Clinical diagnosis of compartment syndrome starts with vigilance following splint application. The earliest symptom is an increasing pain that is not in sync with the extent of the injury[13] and in this index patient, the occurrence of severe pain that was not experienced previously as soon as the splints were applied. Pulselessness, paralysis, and darkening of the skin are late signs and they may indicate imminent gangrene. It was in this advanced stage that the patient was admitted under our care. Emergency fasciotomy of both legs helped to save her limbs from amputation, but irreparable damage had occurred. Splints should be applied in such a way that it would be possible for patient or relatives to remove them as instructed if excessive pain occurs, especially when it is not convenient to go the hospital in the middle of the night.

We relied solely on clinical methods for the diagnosis of compartment syndrome in this patient. Intracompartmental pressures vary from compartment to compartment, from limb to limb, and in individuals. It is also largely dependent on the diastolic pressure of the patient and there are many methods of compartment pressure measurements and monitoring.[14] Summarily, it

is not an absolute value and intracompartment pressure measurement is not absolutely necessary in making the diagnosis, especially in unequivocal cases and also where the facilities are not readily available as in our setting.

The traditional medical practitioners are presumed to connect the seen and unseen forces in their art of healing and intend to create harmony and balance between the patients and their ancestors so that they can regain their health.[15] It is common knowledge from the Christianity point of view that the prayer warriors expectedly should commune with the omniscient, creator of the whole universe who gives life in abundance to eliminate infirmities in the patients. However, when a prayer warrior applies tight splints on the legs of a cerebral palsy patient and inadvertently causes irreparable limb damage, it portends great danger in the community. We recommend that before this malpractice becomes rampant, the government should put some enforceable control measures in place urgently.

CONCLUSION

Overzealous practices in prayer houses are not common cause of limb damage when compared to traditional bone setters. However, this new trend though isolated, if allowed to go on especially with the high proliferations of prayer ministries in our environment, will cause a lot of untold hardship on patients who may suffer irreparable damages on account of unnecessary, unprofessional, medical intervention by prayer warriors.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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