



### Lightning Burns and Traditional Medical Treatment: A Case Report

#### *Brûlures d'éclair et Traitement Medical Traditionnel: Un Cas Isolé*

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#### ABSTRACT

**Background:** Lightning strikes are relatively uncommon. In our culture where superstitions are strong and natural events often linked to evil forces, the traditional bonesetter/healer is often consulted first. Patients then seek orthodox care when complications develop. Patients also have difficulty accepting ablative treatment when indicated.

**Objective:** To present an usual case of bilateral upper limb burns caused by lightning and complicated by refusal to receive orthodox treatment.

**Case Report:** A 22 year old woman was struck by lightning while asleep. Instead of going to hospital, she was taken to a traditional healer where she spent two months before presenting with gangrenous upper limbs to hospital. Patient refused amputation and abandoned hospital against medical advice.

**Conclusion:** This case report of bilateral upper limb burns resulting from lightning is rare. Importantly, the case highlights the role of ignorance, superstition and the disastrous results of traditional medical practice in our healthcare delivery. *WAJM* 2007; 26(1): 53 – 54.

**Keywords:** Lightning burns, gangrene, traditional medical practice.

#### RESUME

**Contexte:** Les coups d'éclair sont relativement peu communs. Dans notre culture, où les superstitions sont assez prononcées et les événements naturels souvent liés aux mauvais esprits, le guérisseur/masseur traditionnel est le plus souvent le premier à être consulté. Les patients cherchent les soins orthodoxes par la suite quand les complications se développent. Les patients ont aussi des difficultés d'accepter le traitement prescrit. **Objectif:** C'est de présenter un cas habituel de brûlure d'un membre supérieur bilatéral causé par l'éclair et compliqué par le refus de recevoir un traitement orthodoxe.

**Cas Reporté:** une femme de 22 ans a été frappée par la foudre quand elle dormait. Au lieu d'aller à l'hôpital, elle a été emmenée chez un guérisseur traditionnel où elle a passé deux mois et par la suite elle s'est présentée à l'hôpital avec des membres supérieurs gangreneux. Elle a refusé l'amputation et a abandonné l'hôpital contre le gré du médecin.

**Conclusion:** Ce cas souligne le rôle de l'ignorance, la superstition et les résultats désastreux de la médecine traditionnelle dans nos soins de santé. *WAJM* 2007; 26(1): 53 – 54.

**Mots Clés:** Brûlures d'éclair, gangrene, médecine traditionnelle.

## INTRODUCTION

Lightning injuries are rare and result from extreme temperatures and electromechanical forces. These injuries may be as mild, moderate and severe<sup>1,2</sup>; cutaneous burns are common in the moderate category. Other symptoms are non-specific and include seizures, respiratory arrest and cardiac arrest.<sup>1</sup> About 20% of persons struck by lightning die.

Many African societies strongly believe in superstition. Because of his alleged ability to communicate with the supernatural, the traditional healer still enjoys considerable influence in our culture. However, the varied complications that result from traditional bone setting practices are well documented.<sup>3</sup>

One of the most severe complications of traditional medical practice is extremity gangrene. In this case, it was bilateral. We are aware that limb gangrene complicating traditional bone setting practices have been reported.<sup>4</sup> As far as we know, a bilateral upper limb gangrene following traditional intervention for lightning burns has not been reported. We report this case to highlight this severe complication and the role of ignorance, superstition and disastrous results of traditional medical practice.

## CASE REPORT

A 22-year-old woman presented with a two-month history of pain, black discoloration and inability to use both upper limbs. She had been sleeping in a house which was struck by lightning during a thunderstorm and suffered burns to both upper limbs, right side of face, patchy areas of the trunk and left lower limb.

Believing the lightning strike to be the handiwork of evil forces, patient attended a traditional healer's practice where she spent 2 months. Despite "tradomedical" intervention, her symptoms and general condition worsened, both upper limbs became infected and gangrenous up to the

elbows, and patient became pale and toxic. The putrefaction of both upper limbs generated a pungent, offensive odour.



**Figure: The patient at presentation. Note the gangrenous infected upper limbs, breast and face.**

She was resuscitated with fluids and antibiotics, and counselled for bilateral above elbow amputation. The patient convinced that evil spirits were at work refused amputation and left the hospital against medical advice. We have not seen her since then.

## DISCUSSION

Lightning strikes result in the delivery of high voltage electric charges of up to 300 kilovolts over a few milliseconds in contrast to typical high voltage electrical shock of 20–63 kilovolts which rarely lasts over half a second. Lightning burns are usually superficial though they may be deep at the entry and exit points. Lightning strikes are classified into three types: direct strike, side-flash ("splash"), or ground strike<sup>1</sup> and the injuries may be classified as mild, moderate or severe.<sup>1,2</sup> Superficial burns are much more common in moderate injury. Individuals who suffer lightning

strikes are usually outdoors and erect. The injuries are therefore mostly on the head, neck and shoulders. The fact that this reported case was asleep may account for the wide distribution of injuries.

Traditional medicine applies a wide variety of practices, approaches, knowledge and beliefs including spiritual therapies to diagnose, treat and prevent illnesses or maintain well-being<sup>(3)</sup>. There is no evidence that this notion is correct. The method is very popular in our culture. There is evidence that traditional bone setting practices are beset with an unacceptable complication rate<sup>3-5</sup>.

Amputation is an unpopular treatment modality in our culture. Stigmatization, social taboos, religious beliefs and poor prosthetic technology continue to militate against the acceptance of this treatment modality by the vast majority of patients who need it. Late presentation, ignorance, superstitious beliefs and inappropriate interventions prevent prompt and judicious interventions which may help prevent severe complications. As long as traditional medical practitioners are allowed to operate, we shall continue to see major complications and death from simple, easily treated pathological conditions.

## REFERENCES

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