

# Tropics-Specific Diabetic Hand Syndrome

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## Abstract

**Background:** In abstract Hand infections among diabetic patients are widespread in tropical areas and continue to be a major cause of morbidity and mortality. The phrase “tropical diabetic hand syndrome” has been developed to describe diabetic hand infections that frequently happen there. Many doctors, particularly in sub-Saharan Africa, are unaware of this syndrome, which causes it to be ignored and underreported. This case study is being published to raise awareness of tropical diabetic hand syndrome.

**case Presentation:** We discuss the case of a 57-year-old black African driver who was recently diagnosed with type 2 diabetes mellitus after presenting with a life-threatening infection of the right hand. Lawal Group 3 right diabetic hand syndrome was identified as the cause of the infection.

**Conclusion:** Even though tropical diabetic hand syndrome is linked to substantial morbidity and death, many doctors in sub-Saharan Africa have underreported its occurrence. The prevention of tropical diabetic hand syndrome is more simple, less expensive, and involves educating diabetic patients on proper glycaemic control and hand hygiene.

## Introduction

Diabetes patients have reported having hand infections, which can result in serious complications such as amputations, functional disabilities, or even death from sepsis [1-3]. Due to the prevalence of these diabetic hand infections in the tropics, the name “tropical diabetic hand syndrome” (TDHS) has been developed [1,3,4]. This illness consists of a complicated pattern of hand infection, starting with cellulitis and progressing to edoema, ulceration, and more severe infections such as gangrene or necrotizing fasciitis [1,2]. Systemic sclerosis, trauma, connective tissue disorders, vasculitic disorders, and myeloproliferative disorders are risk factors for hand infections in diabetic individuals [5]. The most frequent risk factor in the tropics is still unrecognised minor trauma [1].

## Case representation

A 57-year-old male black African motorist was seen at our facility with a right thumb edoema that had gradually developed pain.

of two weeks' duration that later developed into an ulcer and gangrenous tissue, all in a feverish setting. This began after a minor injury that was initially treated as a walk-in patient with cloxacillin, diclofenac, and daily dressing after the initial consultation in our service.

Despite initial treatment, this illness spread from the tip of the thumb to include the entire digit, and it subsequently turned gangrenous. The patient did not smoke or consume alcohol, and neither did they have a history of diabetes or hypertension.

Upon presentation, a physical examination revealed a fever of 38.4°C, a heart rate of 124 beats per minute, and a blood pressure reading of 150/80mmHg. Compared to infections associated with diabetic feet, the diabetic hand is a less well-known phenomenon [1]. Alzheimer's hand

Infections are frequently underdiagnosed and disregarded, which increases morbidity and death [1,2]. Recent research suggests that diabetic hand infections are more common than they are thought to be in tropical areas, particularly in sub-Saharan Africa [6,7]. The common The lack of established recommendations and protocols for the management of this disease entity, together with the late diagnosis of TDHS, are the main reasons why management of this condition is still difficult. Nthumba et al. found that TDHS appears to be more aggressive in some patients than in others and that a multidisciplinary approach, with early involvement of the surgical team, and a radical surgical debridement are essential to improve outcomes [8]. Their study sought to establish a protocol for the holistic management of TDHS to improve digit/hand salvage and function in their centre. Although glycaemic management is a simple and straightforward medical treatment aim, surgical goals like saving a limb or life or maintaining hand function are more complicated, expensive, and challenging to accomplish [8].

The prevalence of diabetic hand sepsis in tropical nations today is a mirror of a disease that formerly affected diabetics in wealthy nations [4]. Increased knowledge of diabetes and its consequences, improved glycemic control in diabetic patients, and access to specialised care are likely to be responsible for the decline in its prevalence in Western regions [4]. Sub-Saharan Africa in particular and the tropical region as a whole lack good health facilities that implement educational programmes on the prevention and treatment of diabetes and its complications. As a result, most patients are not aware of their glycemic state, and those who have diabetes are not aware of consequences. More daycare diabetic clinics that place a greater emphasis on prevention than treatment are needed as a result of government policy.

## Conclusion

Despite having a high mortality rate and morbidity rate, tropical diabetic hand syndrome has been underreported.

and as a result, many doctors in sub-Saharan Africa underreport it. The prevention of TDHS is more affordable and simpler when diabetes individuals are educated on proper hand hygiene and glycaemic management.

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