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A disseminated case of Buruli ulcer at Macenta in the forest region of Guinea in West Africa

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ABSTRACT

The author report a confirmed case of Buruli ulcer at Macenta in the forest region of Guinea in West Africa. An 8 years old girl came to the general hospital of Macenta located in the forest region of Guinea at 800km south–west of Conakry. Her story reveals that she used to swim in the local river of Man region in Ivory Coast. There is no notion of trauma or insect bite .The disease started 2 years ago by a nodule of the skin in her right leg which had ulcerated; she received various traditional treatments.

1. Introduction

She arrived at the medical Centre of Mission Philafricaine of Macenta on May 8th 2011 with Infected ulcer of legs. Initial findings shows following results: Emmel test negative, ESR 70mm/h, negative results for acid–fast bacilli (AFB). The diagnosis of Buruli ulcer was confirmed 3 months later by the positive results for acid–fast bacilli (AFB) performed at the laboratory of the medical Centre (in Guinea),by positive results of the polymerase chain reaction (PCR) for *M. ulcerans* performed at the Mycobacterial unit of The Tropical medical Institute of Antwerp (in Belgium) and by characteristic histopathological lesion for BU performed at the Institut fure histologische und zytologische Diagnostik Aarau.(Switzerland).The bone involvement is shown by the Radiography (pictures 2) of bone.

Buruli ulcer(BU) is a severe disfiguring and disabling infectious disease caused by *Mycobacterium ulcerans* . Children less than 15 years of age are more affected in many

tropical and subtropical countries. In early or preulcerative lesions, *M. ulcerans* produces a lipid toxin, mycolactone, which is responsible for necrosis of the dermis, panniculus, and fascia, culminating in extensive ulcers^[1] The involvement of bone has been also described ^[2,3] Buruli ulcer disease was identified in 1897 by Sir Albert Cook, a British physician, at Mengo Hospital in Kampala, Uganda. A detailed description of the disease was written in 1948 by Professor Peter MacCallum and his colleagues, who were treating patients from the Bairnsdale district, near Melbourne, Australia^[4]. Since the disease foci have been reported from tropical areas in Asia and Latin America, but the largest numbers of patients with Buruli ulcer disease have been detected in central and West Africa ,especially in Benin, Côte d'Ivoire, and Ghana, where the number of detected cases has alarmingly increased in recent years ^[5]. The confirmation of diagnosis is made according to WHO criteria by 2positive test out of the 4 following test: Acid fast bacilli, Polymerase Chain reaction, Histopathology,Culture) ^[6] The confirmation of BU by WHO criteria is a challenge in the forest region of Guinea in West Africa where clinically suspected cases are reported ^[7]. The authors are reporting a confirmed case of Buruli ulcer with involvement of bone in the forest region of

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Guinea in West Africa.

2. Case report

Her story reveals that she used to swim in the local river in the Man region of Ivory Coast and the disease started 2 years ago by a nodule of the skin in her right leg which had ulcerated; she received various traditional treatment without success.



Figure 1. 6th July 2011. The lesion of her right arm (picture 1)



Figure 2. The involvement of bone in the elbow and her left knee as shown in the picture 2

Chronology of clinical features and treatment of the patient since her arrival at Macenta May 8th 2011 She arrived at the medical Centre of Mission Philafricaine of Macenta with an Infected ulcer of legs. Initial findings shows following results: Emmel test negative, ESR 70mm/h, negative results for acid-fast bacilli (AFB). Several surgical excision and dressing of the wound has been performed 1st July 2011: Her right leg has been amputated

August 26th 2011: positive results for acid-fast bacilli (AFB) (2+) at The Laboratory unit of the Medical centre of Mission

Philafricaine at Macenta (in Guinea)

August 24th 2011 Collection of specimen for Histopathology exam in Switzerland

September 19th 2011 Analyze of specimen in Switzerland

September 21st 2011 Histopathology results in Switzerland

September 22nd 2011: Positive results of the Histopathology (presence of Acid fast Bacilli in specimen) and histopathology finding suggestive of Buruli Ulcer.

November 8th 2011 : Positive PCR Results for IS2404 and positive results for acid-fast bacilli (AFB) (3+)

The management has consisted on several step of surgical excision, several steps of sequestrectomy and treatment with streptomycin and rifampicin for 4 months than 4 months of Rifampicin and Clarithromycin (4). She is still under care.

The authors are reporting the first documented cases of Buruli ulcer proven by 3 criteria out of 4 according to WHO diagnosis criteria .The lesion of the bone proven by radiological finding.

Conflict of interest statement

We declare that we have no conflict of interest.

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