# Cutaneous leishmaniasis in Senegal: When the practitioner is disarmed

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### ABSTRACT

Cutaneous leishmaniasis causes a problem of management in Senegal. Herein, we report a case illustrating this problem. A 55-year-old patient from Dahra Djoloff (260 km north of Dakar) developed diffuse cutaneous leishmaniasis due to *Leishmania major*. The management was hampered by the unavailability of Glucantime in the country. Despite the endemicity of leishmaniasis and the existence of NTD control programs, Glucantime remains inaccessible in Senegal. Leishmaniasis control policies should focus on the problems of the patient, particularly the accessibility of glucantime.

Key words: Cutaneous leishmaniasis, Senegal, Therapeutic difficulties

# INTRODUCTION

Cutaneous leishmaniasis, a neglected tropical disease (NTD), is endemic in Senegal. While there is an expansion of its geographical area and the emergence of the visceral form, therapeutic means of medicine are difficult to access [1,2]. Through this observation, we return to this problem of care.

# **CASE REPORT**

Mr. AK, 55-years-old, was from Dahra Djoloff, a dry and arid area located an average of 260 km north of Dakar. He did not report a notion of traveling seven months before the onset of the illness. He was referred by his attending physician for the management of disseminated skin lesions located on the arms and trunk. An examination revealed a diffuse, painless, crusty ulcer with a fleshy base with raised and infiltrated margins (Figs. 1a and 1b). The PCR study of a biopsy core isolated *Leishmania major*. Complete blood counts, transaminases, kidney function, and electrocardiogram were normal. Retroviral serology was negative. The diagnosis of diffuse cutaneous leishmaniasis was retained. The management was hampered by the unavailability of N-Methyl-Dglucamine (Glucantime\*) in the country. The first phase of processing was incomplete because only two boxes ordered from France had arrived.

## DISCUSSION

This observation is being reported in order to share two points. The first concerns the origin of the patient, which is remarkable because it is not known as a Leishmaniasis endemic area. According to our practice and studies on the disease, cases from this geographical area have never been reported [1,2]. This was the first case of cutaneous leishmaniasis in a patient from Dahra Djoloff, which predicts a beginning of modification in the distribution of leishmaniasis in Senegal in a context where the WHO reports since the COVID pandemic, epidemic outbreaks in certain regions of the world [3]. Indeed, although there is an endemicity of leishmaniasis in Senegal, it is rampant in the region of Thiès (50 km north of Dakar) and in that of the Senegal

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Figure 1: (a) Cutaneous leishmaniasis with a diffuse, crusty ulcer on the arms. (b) Crusty ulcer on the neck due to leishmaniasis.

River located in the extreme north of the country in eastern Senegal. An expansion of the geographical area with indigenous cases from the capital (Dakar) has been reported [1]. Climate change facilitating the development of the vector could explain the emergence of cases in the capital. Entomological studies aimed at isolating the sandfly would make it possible to certify the actual expansion of its mapping.

This expansion would have a significant impact on patients because the Senegalese dermatologist is entirely helpless in the management of leishmaniasis. No molecule among the recognized anti-infectives is available in the country at a time when there is a ministerial program against NTDs. Amphotericin B, pentamidine, and N-Methyl-D-glucamin antimoniate (Clucantime\*) are inaccessible. The latter, the main therapeutic weapon that we had, is nowadays nowhere to be found. Sporadically, it is obtained from some, if not a pharmacy as a result of an individual order of inaccessible cost. The price of a box of five ampoules, which was 35,000 FCA (52 euros) six years ago, is currently 65,000 FCF (99 euros). Thus, the amount of 792 euros (six times the minimum wage) is required for the two-cycle cure of ten days each. This significant budget is beyond the financial capacity of most of our patients without health insurance. This is a neglected and persistent obstacle in the treatment of the disease. These therapeutic difficulties are recurrent despite the expression of needs regularly renewed [2]. Yet, NTD seminars are increasingly organized, while Glucantime\*

remains untraceable and health workers are poorly trained in diagnosing and managing the disease.

The strategy to combat leishmaniasis should be more patient-centered by facilitating the accessibility of Glucantime\* through a policy of availability in hospital pharmacies and by subsidizing or even free treatment. On the other hand, the training of health personnel in the recognition of different clinical forms as varied as multiple is a cornerstone in the fight against NTDs, especially leishmaniasis.

# CONCLUSION

Leishmaniasis control policies should focus on the problems of the patient, particularly the accessibility of Glucantime.

# Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

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