# **Cutaneous Loxoscelism: A Moroccan observation**

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**ABSTRACT:** Loxoscelism is a medical condition due to bites and envinemation by recluse spiders of the genus Loxosceles that may be the cause of polymorphus skin or visceral manifestations up to shock, coma, and death. General practitioners know very little about this condition, which is why it is important to highlight it in order to plan appropriate treatment and prevent complications.

Case report: This report is related to a 2-year-old infant female who is admitted to the emergency room with a large, red, and painful lower limb against a backdrop of fever due to the bite of a spider 48 hours before.

Conclusion: Cutaneous oxoscelism is a poorly diagnosed condition. As identification of the spider is not always possible, the diagnosis must then be made on the basis of epidemiological, clinical, and biological evidence after eliminating other causes in order to prescribe appropriate treatment.

**KEYWORDS:** Spider Bite, Recluse Spider, Infant, Morocco, Erysipelas.

## **1** INTRODUCTION

Loxoscelism corresponds to any cutaneous or visceral manifestation secondary to a bite by spiders; its manifestations, especially dermatological, are highly polymorphic and can simulate several pathologies.

We report a 2-year-old infant female with a cutaneous loxoscelism and an eresypyloid reaction as a skin manifestation.

## 2 CASE REPORTS

A 2-year-old infant female is admitted to emergency with a large, red and painful lower limb against a backdrop of fever due to the bite of a spider 48 before. The spider was identified by the family; initially the sting was mildly itchy; after a few hours, the infant accused of crying complained of a slight swelling and redness around the lesion; then, after 24 hours, it appeared to be a bulla with hemorrhagic content with worsening of the edema and erythema in a context of fever, which motivated the family to consult the emergency department. A clinical examination revealed an infant in good general condition with a febricula of 37.8. Dermatological examination revealed a swollen, slightly hot, erythematous, and painful lower limb with the presence of a bulla with a collapsed roof at the presumed site of the bite (Fig.1). Biological tests showed a leucocytosis of 18,000 with neutrophil polynucleosis and a CRP of 60; the rest of the tests were normal. The diagnosis of cutaneous loxoscelism was retained, and the patient was put under elevation of the limb, compresses soaked with salted serum, fulcidic acid locally, and protected oral amoxicillin. The evolution was favorable (Fig.2).



Fig. 1. Picture showing a tumefied right lower limb with a discontinuous erythematous palacard centered by a hemorrhagic bulla with a collapsed roof



Fig. 2. Control picture after one week's treatment, showing the disappearance of the edema and erythema with the persistence of a erythematous macule

### 3 DISCUSSION

Loxoscelism is a condition that is underdiagnosed and poorly understood by general practitioners due to its rarity. It is a serious araneism that can be strictly cutaneous with variable clinical aspects, as it may be fatal (1,2). It occurs due to bites of the spiders of the genus Loxosceles (3). The distribution of this species is ubiquitous; however, it is of particular interest on the American continent and the Mediterranean rim, including Morocco.

Several complications of loxoscelism have been described. Skin complications can range from a simple urticarial reaction to an ulcerated lesion centered on necrosis via a bulla, (4) or, as in the case of our patient, an erysipeloid reaction associated with adenopathy. Cases of generalized exanthema or generalized exanthematous pustules have also been described (3,4). Systemic manifestations are rare and can go as far as shock, coma, and death (5-7). They are most often of a hemological nature, cases of renal failure, and disseminated intravascular coagulation in severe forms mediated by phospholipase D in the venom (1,2).

The elderly and children are more susceptible to systemic loxoscelism, but patients state of health is also an important risk factor (4).

A diagnosis of certainty is based mainly on capturing the spider, although this is only done in 13% of cases (8). In our case, the female sex, the summertime sting, the location on the limb, and the absence of visceral manifestations corroborate the epidemio-clinical data in the literature concerning L. rufescens cutaneous loxosceliasis (9).

The general management and treatment are supportive and include washing the site of the bite with water and soap, tetanus prophylaxis, the administration of analgesics and antihistamines, and an icepack to reduce edema, itching, pain, and redness. Strenuous activities, debridement, and topical steroids must be prohibited to prevent the expansion of the necrotic lesion (10,11).

### 4 CONCLUSION

Given that identification of the spider is not always possible, the diagnosis must then be made on the basis of epidemiological, clinical, and biological evidence and after eliminating other causes in order to prescribe an appropriate treatment, which is most often directed according to the cutaneous manifestations presented; however, general measures are common and appropriate whatever the cutaneous manifestation (6).

#### REFERENCES

- Nguyen N, Pandey M. Loxoscelism: Cutaneous and hematologic manifestations. Adv Hematol 2019; 2019: 4091278. doi: 10.1155/2019/4091278.
- [2] Cullen R, Hasbu.
- [3] Adya KA, Janagond AB, Inamadar AC. Cutaneous loxoscelism-associated exanthem mimicking acute generalized exanthematous pustulosis. Indian Dermatol Online J 2022; 13: 667-8.
- [4] Shahi, M., Shahi, A., Khademi, Z., Zamani, A. R., Nakhaii, A. R., & Rafinejad, J. 2021. Loxoscelism: a case report from Bandar Abbas in south of Iran. Hormozgan Medical Journal, 185, 421-427.
- [5] Swanson DL, Vetter RS. Loxoscelism. Clin Dermatol. 2006; 24: 213-221.
- [6] MoldJW, Thompson DM. Management of Brown Recluse Spider Bites in Primary Care. J Am Board Fam Pract. 2004; 17: 347-352.
- [7] Goddard J. Physician's Guide to Arthropods of Medical Importance. 4th ed. New York: CRC. LLC. Press; 2003: 310-313.
- [8] Le loxoscelisme arrive dans le sud-ouest: à propos de cinq cas, annales de dermato et vénérologie, volume 143, issue 12, supplement, decembre 2016, pages S344 -S345.
- [9] Fetoui, N. Ghariani, et al. «Le loxoscelisme cutané: à propos de 9 observations tunisiennes.» Annales de Dermatologie et de Vénéréologie. Vol. 145. No. 12. Elsevier Masson, 2018.
- [10] Elghblawi E. Brown Recluse Spider Bites; A Case Report. Middle East J Nurs. 2009; 3: 3-5.
- [11] Appel MH, Bertoni da Silveitra, Gremski W, Veiga SS. Insights into brown spider and loxoscelism. I S J. 2005; 2: 152-158.