

## Clinical Case

# *Necrotic cutaneous Loxoscelism*

Running title: Necrotic cutaneous Loxoscelism

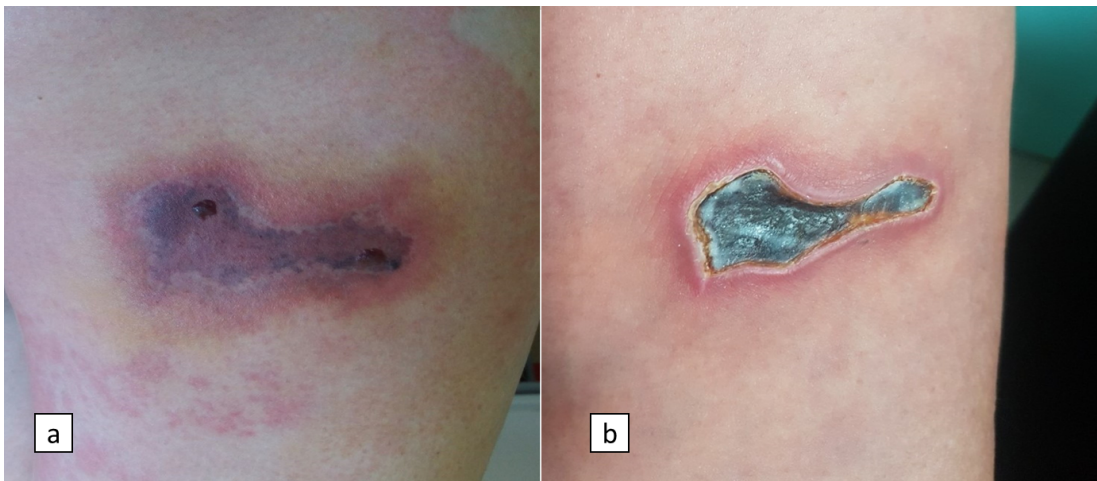
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A 56-year-old woman presented with a painful edematous skin lesion due to a spider bite. The evolution of the wound from an erythematous, painful lesion into a necrotizing skin cavity was consistent with the diagnosis of cutaneous loxoscelism. Cutaneous loxoscelism is a medical condition induced by the bite of a spider of the genus *Loxosceles*, which causes a necrotic ulceration through the enzyme sphingomyelinase D [1]. This is an endemic case of a necrotizing injury bite in areas of the Midwestern and Southern United States, but it is infrequently reported in Greece [2]. Physicians in nonendemic brown recluse regions should be cautious in implicating brown recluses in dermonecrotic wounds in order to initiate appropriate treatment and recommend effective preventative measures.



**Fig. 1** a. The "red, white and blue" sign which results from reactive erythema, vasoconstriction and thrombosis; b. Necrotizing skin cavity developed 10 days after the brown recluse spider bite.

## References

1. Lopes PH, Murakami MT, Portaro FCV, Mesquita Pasqualoto KF, van den Berg C, Tambourgi DV. Targeting *Loxosceles* spider Sphingomyelinase D with small-molecule inhibitors as a potential therapeutic approach for loxoscelism. *J Enzyme Inhib Med Chem*. 2019 Dec;34(1):310-321. doi: 10.1080/14756366.2018.1546698.
2. Da Silva PH, Silveira RB, Appel MH, Mangili OC, Gremski W, Veiga SS. Brown spiders and loxoscelism. *Toxicon*. 2004; 44:693-709.

## AUTHORS CONTRIBUTION

The authors prepared the manuscript and the artwork. All authors approved the final version of the manuscript.

## CONFLICT OF INTEREST

All Authors declare no conflict of interest.