state of the whole organism. It can be assumed on the basis of present results that these products may be also "released" to other compartments of the organisms, such as epidermis.

It is worth stressing that this study is the first one in which LPO products or any other products of oxidative damage to macromolecules, were measured in epidermis obtained via microdermabrasion. However, it is worth mentioning that LPO was measured in other skin components. For example LPO was found increased in skin biopsies performed in pemphigus foliaceous patients[9], and in human fibroblasts under experimentally induced oxidative stress.[10]

Summing up, overweight and, to a higher extent, obesity in female adults are associated with increased oxidative damage to membrane lipids. Lipid peroxidation, measured in the outermost layer of dead skin cells from the epidermis, could be a reliable index of oxidative stress related to obesity. This material obtained during microdermabrasion may be used for evaluation of oxidative damage to macromolecules.

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Cutaneous loxoscelism due to *Loxosceles rufescens*

Editor

A 53-year-old man presented with a skin lesion on his right thigh of a 4-day duration. It had begun as a punctate lesion of sudden onset, with intense itching, and had increased in size centrifugally. At first, his general practitioner prescribed Ibuprofen 600 mg every 8 h. On physical examination, an inflammatory area, 20 cm in diameter, was observed on the inner side of his right thigh. It also had a central flaccid blister, 3 cm in diameter (Fig. 1). The affected area was intensely hot and associated reduction in mobility of the same leg. Neither fever nor signs of systemic involvement, nor alterations in blood tests were observed. The patient found three spiders (two adults and a spiderling) in his home. Given this finding and considering the clinical picture, a spider bite was diagnosed. Oral treatment was initiated with Amoxicillin-Clavulanate 875/125 mg along with topical Fusidic Acid. Progressive symptomatic improvement with complete resolution was observed within 4 months.

Morphological analysis of spider specimens was performed using binocular viewing stereoscopic microscope. They were identified as *Loxosceles rufescens* because of the brown colour of the specimens, the size between 10 and 15 mm, the disposition and number of eyes which in this species are three pairs of simple eyes arranged in a triangle (two lateral pairs and one above) (Fig. 2a) and the violin-shaped pattern on the dorsal cephalothorax (Fig. 2b).

Loxosceles genus spiders are active mainly at night, living in both rural and urban domestic environments. They are not

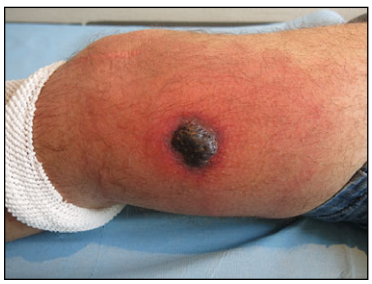

Figure 1 Inflammatory area with central flaccid blister.

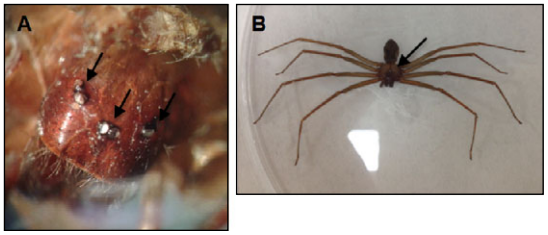

Figure 2 *Loxosceles rufescens*, adult. (a) Eyes disposition. (b) Violin-shaped pattern on the dorsal cephalothorax.

aggressive, and when bites occur, they are mainly defensive.[1–3] Severe spider bite cases are well-known in North and South America due *to L. reclusa* and *L. laeta*. The predominant endemic species in Europe and the Canary Islands is *L. Rufescens*[3–5] considered to be less dangerous. The diagnosis of a spider bite is usually made on clinical suspicion because the onset of symptoms is not immediate.[2] To our knowledge, only five cases of cutaneous loxoscelism have been described in Spain.[2,3,5,6] The spider was identified only in one of them.[3] Although there are more suspected cases in the rest of Europe, we have only found four confirmed *L. rufescens* bite reports, with correct classification of the spider.[7–10]

The bite of these spiders can cause lesions confined just to the skin, and also potentially serious cutaneovisceral pictures associating hemolysis and disseminated intravascular coagulation, especially when the bite is caused by *L. laeta*, *L. gaucho* or *L. intermedia*.[1] Cutaneous loxocelism is characterized by the appearance of a local, itchy and progressively painful injury that can evolve into two different forms: a necrotizing form (over 90% of cases) characterized by a purplish plaque, the onset of which occurs in the first 24–48 h after the bite. It usually evolves into a dry gangrene or ulceration that heals slowly.[1–3] The second form is oedematous (5% of cases) that occurs mainly in the facial region with extensive tough, elastic, painful and disfiguring oedema, but without associated erythema or necrosis.[2,4] The treatment consists of rest, application of local cold, analgesia, antibiotics and tetanus prophylaxis. Systemic treatments such as corticosteroids or dapsone are reserved for cutaneovisceral loxoscelism cases.[1–6,8–10]

We offer the second case in our country of cutaneous loxoscelism with correct identification of *L. rufescens*. As recently noted by Planas *et al.*,[11] this species should also be taken into account as a possible agent of this clinical presentation.

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Treatment of resistant port-wine stains with bosentan and pulsed dye laser: a pilot prospective study

Editor

Pulsed dye laser (PDL) is the gold standard treatment port-wine stains (PWS) but provides inconsistent results. Targeting the angiogenesis occurring after laser session is thus appealing.[1,2] Isolated successes have been reported using systemic rapamycin, whereas topical approaches using rapamycin or beta-blockers failed to provide truly satisfactory results.[3,4] Somatic mutations in the GNAQ gene were reported in Sturge-Weber syndrome and in PWS.[5] Interestingly these mutations can activate the MAPK pathway and stimulate the downstream expression of endothelin.[6,7] The implication of endothelin in vascular lesions is well known[8] and the use of antagonists showed their effectiveness to prevent neoangiogenesis in animal model.[9] Thus, it might be hypothesized that bosentan, an inhibitor of endothelin receptors, could inhibit the postlaser neoangiogenesis. We thus