Correspondence

Arachnidism by *Segestria bavarica* with severe neuropathic pain successfully treated with lidocaine 5% plaster

Spider poisoning in Europe is rare, and only a few families within the Araneae order are medically relevant. In particular, spiders of dermatological concern mainly belong to *Latrodectus* and *Loxosceles* genus.^{1,2}

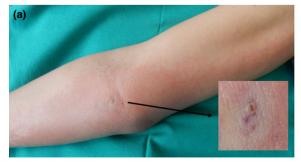
A 45-year-old woman was referred to us with a large erythematous and edematous indurated plaque with well-defined central pallor on the medial aspect of her right forearm. There were consensual lymphangitis and axillary lymphadenitis (Fig. 1a). Systemic symptoms were not present, and laboratory findings were unremarkable. Intense pain radiated from the bite to her arm, with dysesthesia (burning, tingling, numbness, "electric shock like," pins and needles sensation), hypoesthesia to touch, and allodynia, causing mild disability on daily activities. She reported that 3 days previously, she suddenly woke up at night with acute severe bite-like pain on the site and found a dead spider without one leg lying in her bed sheet. Within 1 day, a little erythematous and edematous area, centered on two close red dots, appeared with local mild pain.

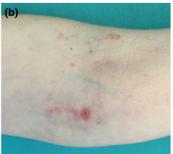
A diagnosis of necrotic spider bite with lymphangitis and severe localized neuropathic pain (LNP) was made (11-point Numeric Rating Scale [NRS]: 8; Neuropathic Pain Diagnostic Questionnaire [DN4]: 7). The patient was treated orally (amoxicillin-clavulanic acid, 1 g bid; prednisone, 25 mg qd) and topically (clobetasol propionate ointment, bid) for 1 week. Because of LNP, lidocaine 5% plaster (10 cm \times 14 cm adhesive plaster, containing 700 mg [5% w/w] lidocaine) once a day for up to 12 hours was applied. After 2 weeks, erythema and edema subsided, and central yellowish eschar with well-defined border was present (Fig. 1b). The patient noticed an improvement in

pain (NRS: 4; DN4: 6), which was further improved after another 2 weeks of therapy (NRS 3; DN4 3), when only mild tingling, numbness, and hypoesthesia to touch were present. Two months after the spider bite, she had a small depressed and hypopigmented scar (Fig. 1c) with mild hypoesthesia to touch localized to the surrounding skin. The treatment was then discontinued, without recurrence of pain. The spider found by the patient (Fig. 2) was entomologically identified by the Department of Veterinary Medicine of Perugia University, Italy, as Araneae Labidognatha, Segestriidae: Segestria bavarica Kock, 1843.

Spiders of the Segestriidae family are widely present in Europe. They mainly live in holes, between and under stones, or under the tree bark, coming out only for hunting, especially during the night in spring and summer. However, in colder climates they can become synanthropic, and they can also be found in cities. Human attacks are mainly due to Segestria florentina Rossi, 1790, while Segestria bavarica is generally harmless, and no case of arachnidism has ever been reported. Segestriidae rarely induce poisoning, with general symptoms like fever, headache, fatigue, and dizziness, normally resolved in about 1 week. Skin lesions, localized in the bite site, are generally erythematous and edematous, without eschars or scarring outcomes.

Skin lesions due to Segestriidae are usually painful; ⁶ burning sensation and hypoesthesia, suggesting LNP as in our patient, were previously described. ⁷ Segestriidae venom contains neurotoxins responsible for neuropathic pain. ⁸ The good result obtained with lidocaine 5% plaster is due to a dual mode of action, by providing a mechanical barrier effect and a pharmacological action via voltage-gated sodium channel blockade as a direct result of lidocaine action. This therapy is successfully





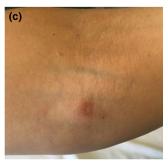


Figure 1 Skin lesion due to Segestria bavarica bite: erythematous and edematous plaque, with a central yellowish necrosis and two close red dots (arrow), and arm lymphangitis, 3 days after spider bite (a); necrotic area with erythematous ring, at day 14 (b); depressed hypopigmented scar, at day 60 (c)



Figure 2 Injured adult female of Segestria bavarica found in patient's bed (second left leg absent)

used in LNP, especially in postherpetic neuralgia, burn sequelae in children, and in various other neuropathic and oncological conditions. It produces effective pain relief, reducing the associated area of allodynia and maintaining benefits in long-term use, with an excellent tolerability profile. Minor application-site reactions are rarely reported, with minimal risk of systemic adverse events and drug-to-drug interactions. In our opinion, this therapy, never used in the treatment of LNP caused by spider bite, can be an effective and safe therapeutic option for this rare but hard-to-handle condition.

Leonardo Bianchi ^{1,*}, MD Rossella Marietti ¹, MD Chiara Piergiovanni ², MD Massimo Renzini ², MD Mario Principato ³, DVM Katharina Hansel ¹, MD Luca Stingeni ¹, MD

¹Section of Clinical, Allergological and Venereological Dermatology, Department of Medicine, University of Perugia, Perugia, Italy, and ²Pain Therapy Unit, Department of Surgery and Biomedical Sciences, University of Perugia, Perugia, Italy

³Department of Veterinary Medicine, University of Perugia, Perugia, Italy

*E-mail: leonardo.bianchi@unipg.it

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References

- 1 Isbister GK, Fan HW. Spider bite. Lancet 2011; 378: 2039– 2047
- 2 Kang JK, Bhate C, Schwartz RA. Spiders in dermatology. *Semin Cutan Med Surg* 2014; **33**: 123–127.

- 3 Bouhassira D, Attal N, Alchaar H, *et al.* Comparison of pain syndromes associated with nervous or somatic lesions and development of a new neuropathic pain diagnostic questionnaire (DN4). *Pain* 2005; **114**: 29–36.
- 4 Pesarini C. Arachnida Araneae. In: Minelli A, Ruffo S, La Posta S, eds. *Checklist Delle Specie Della Fauna Italiana*. Bologna, Italy: Calderini, 1995: 1–42.
- 5 Komnenov M, Pavicevic D. First record of the spider Segestria florentina (Rossi,1790) (Araneae, Segestriidae) in Serbia. Protection of Nature 2008; 58: 169–173.
- 6 Pepe R, Caione R. A case of arachnidism by Segestria florentina (Rossi,1790) (Araneae, Segestriidae) in Salento. Thalassia Salentina 2006; 29: 105–110.
- 7 Trentini M, Marini M. Ragni sinantropici di interesse sanitario: il ruolo di *Cheiracantium punctorium* (Araneae, Clubionidae). In: Carpaneto GM, Cignini B, eds. *Atti 1º Convegno Nazionale Sulla Fauna Urbana*. Roma, Italy: Fratelli Palombi Editori, 1997: 91–92
- 8 Sagdiev NZH, Valieva LA, Korneev AS, et al. Toxic components of the venom of the cellar spider Segestria florentina. Bioorg Khim 1987; 13: 1013–1018.
- 9 Allegri M, Baron R, Hans G, et al. A pharmacological treatment algorithm for localized neuropathic pain. Curr Med Res Opin 2016; 32: 377–384.
- 10 de León-Casasola OA, Mayoral V. The topical 5% lidocaine medicated plaster in localized neuropathic pain: a reappraisal of the clinical evidence. *J Pain Res* 2016; 9: 67–79.

Phototoxic drug reaction with the novel agent rovalpituzumab tesirine

Rovalpituzumab tesirine is a novel agent that consists of an antibody-drug conjugate targeting delta-like protein 3 (DLL3) expressed in most small cell lung cancers and large cell neuroendocrine tumors. We present a case of a phototoxic drug eruption that developed in a young woman who received this agent.

A 33-year-old woman with metastatic fibrolamellar hepatocellular carcinoma began receiving rovalpituzumab tesirine after her tumor tested positive for DLL3 expression and numerous therapies had failed, including multiple resections, tumor embolization, sorafenib, ponatinib, pazopanib, gemcitabine in combination with oxaliplatin, napabucasin in combination with 5-fluorouracil, and nivolumab. After receiving the second dose of rovalpituzumab tesirine, violaceous and erythematous patches developed, with bullae on sun-exposed sites, including the face, ears, posterior neck, upper back, anterior chest, forearms, dorsal hands, and fingers (Figure 1a and b). The eruption was associated with pain, especially in areas involved with bullae. The patient reported that she had not taken any additional new medications and that she had spent time outside without photoprotection.

A biopsy sample from the patient's right hand showed vacuolar interface dermatitis with dyskeratotic keratinocytes consistent with a phototoxic drug eruption (Figure 2). The palms and soles were spared, unlike with acral or toxic erythema of chemotherapy. Laboratory tests for antinuclear antibodies,