

A Case of Sea Anemone Dermatitis Caused by *Alicia mirabilis*

To the Editor:

Because of the growing popularity of recreational subaquatic activities, such as scuba diving, reports about diving-related skin diseases are expected to increase.¹ We report a 45-year-old white man, resident in Lisbon, recreational scuba diver, presented with linear well-localized acute plaques of dermatitis showing erythema, edema, and vesiculation on the upper cutaneous lip arranged in a pattern resembling the letter M, after direct contact with a tentacle fragment of *Alicia mirabilis* (Fig. 1A), which had adhered to his right glove, during pinching of the nose to equalize middle ear pressure with the outside pressure (Valsalva maneuver; Fig. 1B). The onset of the symptoms was verified immediately after the contact, with itching and thereafter a burning sensation on the upper lip (Fig. 1C). The patient was medicated with Fucicort (fusidic acid 2% and betamethasone valerate 0.1%) (LEO Pharma, Ballerup, Denmark) cream 2 times a day and ebastine orally in 10 milligrams 2 times a day. After a 2-week follow-up period, an M-shaped hyperpigmentation was evident (Fig. 1D).

A. mirabilis, member of the phylum Cnidaria, is a large sea anemone. It has thin and numerous long tentacles that, when fully extended, can reach 1 meter of length.² Upon the column, or stalk-branched structure, and tentacles are cells named *nematocysts* that, when activated, throw a spear-shaped structure containing toxins that are injected into the prey, causing paralysis and death. Nematocysts inject toxins, including polypeptides such as actinotoxin, which may cause inflammatory or dermatonecrotic reactions in humans.³

According to the early skin reaction and to the lesion's morphology, this patient clearly has an irritant contact dermatitis. Variations in the intensity of the dermatitis produced by a sea anemone could be related to the specific toxicity of the venom, the extent of the contact, and the individual's sensitivity.⁴

The management of cnidarian poisoning is very important, and specific recommendations are required, taking into account the environmental and specific conditions of the victim. Bathing with fresh water and scratching seem to activate previously undischarged nematocysts, worsening the reaction and intensifying the symptoms. So, the diver should rinse the skin gently with the same water type in which the exposure occurred so as to avoid discharge of residual nematocysts. The treatment after contact

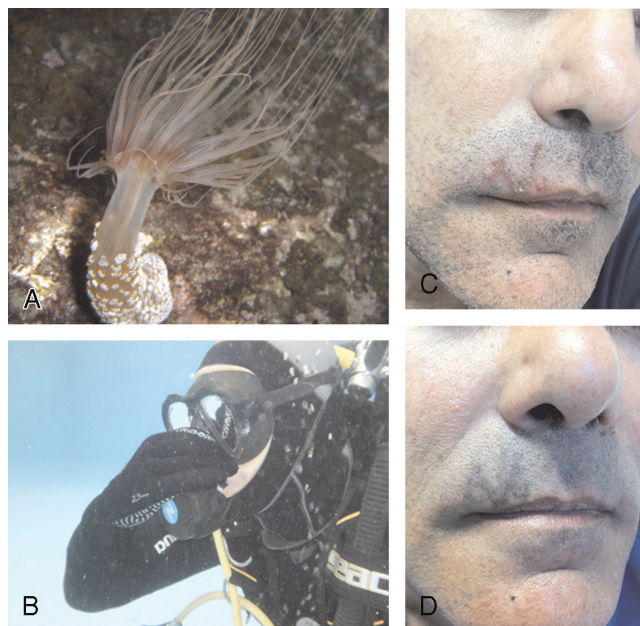


FIGURE 1. A, *Alicia mirabilis*. B, Valsalva maneuver. C, Localized acute dermatitis showing erythema, edema, and vesiculation on the upper cutaneous lip arranged in a pattern resembling the letter M. D, Localized scar with hyperpigmentation after a 2-week follow-up period.

should be symptomatic, and topical steroids, oral antihistamines, and analgesics may afford the victim symptomatic relief.⁵

Victims should be educated to use protective clothes and footwear for these activities, therefore, to avoid cutaneous irritants.

Luís Uva, MD
Diana Miguel, MD
João Ferreira, BA
Leonor Lopes, MD
Paulo Filipe, MD, PhD
Clínica Universitária
de Dermatologia-Faculdade
de Medicina de Lisboa,
Avenida Professor Egas Moniz
António Correia, Ing
Centro Português de Atividades Subaquáticas
Rua Alto do Duque, Lisboa, Portugal

REFERENCES

1. Professional Association of Diving Instructors. Worldwide certification history. Available at: <http://www.padi.com/padi/en/footerlinks/certhistorynum.aspx>. Accessed February 18, 2008.
2. Katsanevakis S, Thessalou-Legaki M. First record of *Alicia mirabilis* (Anthozoa: Actinaria) from the Aegean Sea and density assessment with distance sampling in a site of high abundance. *Marine Biology Research* 2007;3(6):468–472.
3. Kass-Simon G, Scappaticci AA Jr. The behavioural and developmental physiology of nematocysts. *Canadian Journal of Zoology* 2002; 80(10):1772–1794.
4. Halstead BW. Dangerous marine animals. 3rd ed. Centreville MD: Cornell Maritime Press; 1995.
5. Freudenthal AR, Barbagallo JS. Ghost anemone dermatitis. *J Am Acad Dermatol* 2002;47(5):722–726.

Address reprint requests to Diana Miguel, MD, Clínica Universitária de Dermatologia-Faculdade de Medicina de Lisboa, Avenida Professor Egas Moniz 1649-035, Lisboa, Portugal. E-mail: diananevesmiguel@gmail.com
The authors have no funding or conflicts of interest to declare.

DOI: 10.1097/DER.0b013e31827b14f8

© 2013 American Contact Dermatitis Society. All Rights Reserved.