

Erythematous Lesion with Small Arciform Pattern Erosions: A Quiz

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A 59-year-old Caucasian woman presented with a lesion on her left upper leg. She had been swimming in a sea pool in the north of Zanzibar, where numerous turtles were present. She had experienced a single episode of a stinging sensation, with subsequent mild pain. She assessed the intensity of discomfort as 3 points on 11-point numeral rating scale, with the sensation persisting for 5 h. In the meantime, she noticed the lesion on her leg. Physical examination revealed a singular, arciform erythematous lesion with small erosions localized on the lateral part of her upper left leg (Fig. 1). The lesion healed spontaneously within 6 days.

What is your diagnosis? See next page for answer.



Fig. 1. Arciform erythematous lesion with small (about 3x3 cm) erosions on lateral part of upper left leg.

ANSWERS TO QUIZ

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Diagnosis: Turtle bite

The increasing popularity of worldwide travel in recent decades has increased the risk of exposure to animal-related injuries. Data reported to the GeoSentinel Surveillance Network indicates that morbidity from sustaining an animal bite is highest among travellers to Asia, followed by those visiting Australia-New Zealand, Africa, Latin America, North America and Europe. Dogs were the most common animals (more than 51%) responsible for skin injuries; however, other animals, such as monkeys, cats, bats, and reptiles were also involved (1).

It is well-known that turtles may bite, although it is uncommon; they usually bite only when they feel threatened (2). Bites from wild turtles are more common than from captive ones. Herbivorous species of turtles are not usually dangerous; however, they can bite leaving a mark on the skin. The appearance of the lesion typically depends on the size and species of turtle. The lesion is usually arciform, of various sizes, with small, punctual erosions from the turtle's teeth. The discomfort associated with such a bite is usually described as stinging and lasts a short time. The bite does not usually draw blood, and therefore tetanus prophylaxis and antibiotic treatment are not required (2). This was the case in the current patient. Based on the anamnesis, clinical manifestation, the presence of multiple turtles where the patient was swimming, and that she fed the turtles while in the water with them, the bite from a green sea turtle (*Chelonia mydas*) (Fig. 2) was diagnosed. Differential diagnosis included ocean predators, such as sharks, as well as typical venomous fauna of Zanzibar, such as stonefishes, lionfishes and Indian Ocean walkmans. Nevertheless, it is important to remember that skin reactions due to venomous

fish differ greatly from the symptoms seen in the current case. They mostly appear as red, inflammatory lesions running along the side of contact. Moreover, fluid-filled vesicles may appear. The lesion in the current case was disinfected, then healed spontaneously without the need for further medical procedures.

Carnivorous turtle species can cause great damage to the skin. Their bites often cause deep and serious skin injuries, which are associated with severe pain. If the bite draws blood then antibiotic therapy and tetanus prophylaxis are necessary (2, 3). It is important to emphasize that approximately 90% of turtles harbour *Salmonella* species in their enteric microflora, with an increased risk of wound infection following a bite (4, 5). Some species of turtles may be very dangerous. Snapping turtles, especially alligator snapping turtles, have been reported to inflict very serious bites, even resulting in amputation of the finger (3).

Nowadays a variety of "exotic" animals are kept at homes as pets. According to the Pet Food Manufacturer's Association the number of homes with exotic animals in England increased by approximately 12.5% between 2009 and 2012 (6). It is estimated that exotic species of fishes, birds and reptiles are present in approximately 18.6% of homes in England (6). Reptiles appear to be the most common exotic pets worldwide. In the USA 1.5–2.0 million households have one or more pet reptiles (7). Some of these, including venomous snakes, are very dangerous; however, turtles are regarded as presenting very low risk of skin injury (6). A study from Hong Kong revealed only 1 uncomplicated turtle bite (8).

The literature on turtle bites is very limited. It is important to note that turtles can bite, and may cause skin damage. This fact should be considered in the differential diagnosis of skin lesions related to attacks of poisonous ocean fauna and other travel-associated skin lesions.

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Fig. 2. Green sea turtle (*Chelonia mydas*).