

What Is Your Diagnosis?



A 10-year-old boy presented with an intensely pruritic eruption on the buttocks and groin area. The eruption developed 6 hours after he swam in the Atlantic Ocean off the coast of the southeastern United States. The patient denied nausea, vomiting, and general malaise and did not recall having been bitten by an insect.

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The authors report no conflict of interest.

The Diagnosis: Seabather's Eruption



Seabather's eruption (SE) was first described in 1949 as a pruritic papular process almost exclusively limited to regions of the body covered by a bathing suit.¹ Soon after, SE was established as a unique dermatologic diagnosis.

Most cases of SE have been reported off the coast of southern Florida²⁻⁴ and throughout the Caribbean,⁵ though cases have been reported in Mexico⁶; Long Island, New York⁷; Papua, New Guinea⁸; and Brazil.⁹

Systemic signs and symptoms such as nausea, vomiting, general malaise, and fever may complicate the clinical presentation of SE in the early stages. Patients with SE typically display inflammatory papules in a bathing suit distribution pattern. The eruption develops a few hours after swimming in the ocean.

In a study of 70 patients with SE, pruritus was the most common symptom, seen in all by one patient (98.6%), and typically lasted 1 to 2 weeks.¹⁰ Fatigue

and malaise were the next most commonly observed symptoms, seen in 16 patients (23%), with fever reported in 13 patients (18.6%). However, fever was seen in 28 patients (40%) younger than 16 years and in only 7 (10%) adults.¹⁰

The larvae of *Linuche unguiculata*, the thimble jellyfish, are responsible for outbreaks of SE off the coast of southern Florida.¹¹ These larvae are members of the phylum Cnidaria, which includes hydroids, corals, Portuguese man-o'-war, sea anemones, and jellyfish.^{6,10}

Outbreaks of SE are not exclusive to tropical waters. There also have been reports of the disease in the waters off the coast of Long Island. These rarer cases have been attributed to the larvae of the sea anemone *Edwardsiella lineate*.⁷

The main differential diagnosis includes cercarial dermatitis, also known as *swimmer's itch*, which is caused by parasitic organisms invading the integument and representing a developmental stage in the life cycle of freshwater schistosomes.¹² Swimmer's itch tends to affect uncovered areas of the body.

The classic history given by patients with SE usually includes an asymptomatic period while in the water. However, many patients have reported a prickly or stinging sensation upon initial immersion, followed by a pruritic macular, papular, pustular, vesicular, or urticarial eruption in a bathing suit distribution that developed 4 to 24 hours later and persisted for several days to several weeks.⁶

Skin biopsy results demonstrate a predominant superficial and deep perivascular and interstitial infiltrate consisting of lymphocytes, eosinophils, and neutrophils. Generally no epidermal changes have been noted, and the dermal-epidermal junction is intact. Various studies have employed enzyme-linked immunosorbent assays to corroborate these findings in cases reported in both Florida and the Caribbean.^{4,5,10}

Preventive measures must be emphasized to patients, including avoiding water known to contain larvae; avoiding wearing excessive clothing when swimming in seawater; and using suntan lotion, whose salubrious effects may include the prevention of larval penetration in the skin.⁶

Patients with SE require only symptomatic or supportive therapy. Topical lotions and steroid creams rarely ameliorate inflammatory symptoms, and oral antihistamines have less than desirable antipruritic effects.^{8,9} However, several studies have demonstrated that oral corticosteroids currently may provide the greatest relief for affected individuals.^{5,6,10}

Systemic corticosteroids generally are reserved for patients demonstrating severe symptoms.

Our patient was treated twice daily with the midpotency topical corticosteroid fluocinonide, as well as a menthol-containing moisturizing cream several times a day. The patient experienced complete resolution of the lesions in 10 days.

Kumar et al¹³ reported that the risk of developing SE in swimmers exposed to high seasonal concentrations of larvae in salt water is reduced by showering with the bathing suit off after seabathing. The length of time spent in the water or timing of showers was not associated with SE.

Acknowledgment—The authors want to thank Norman A. Lockshin, MD, for his assistance with this manuscript.

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