PHOTO ROUNDS

Pruritic erythematous maculopapular rash

A trip to the beach left this patient with an unusual rash where his bathing suit had been.

A 35-YEAR-OLD MAN came into our clinic with a rash that had developed a week earlier after a trip to a North Carolina beach. The rash started on his upper inner arms (not including his axilla) and then developed in his groin, thighs, buttocks, and the tops of his feet. There was no rash on his back, head, or neck. The rash was a maculopapular eruption with some confluence, and it had a discrete distribution in his bathing suit area.

The patient said the rash was very itchy, although it had improved over the past couple of days. He did not have any systemic symptoms and hadn't used any new soaps or

detergents, nor had he recently worn any new clothes. He did note, however, that he'd experienced a similar rash in the past after trips to the beach, although the previous rashes were not as severe.

None of the other family members who'd accompanied him to the beach had developed the rash.

- WHAT IS YOUR DIAGNOSIS?
- O HOW WOULD YOU TREAT THIS PATIENT?

Robyn Monckton, medical student; Blake Fagan, MD; Daniel J. Frayne, MD; Gaye F. Colvin, MLIS Florida International University, Miami (Ms. Monckton); MAHEC Family Medicine Clinic, Asheville, NC (Drs. Fagan and Frayne and Ms. Colvin)

■ Blake.fagan@mahec. net

DEPARTMENT EDITOR

Richard P. Usatine, MD University of Texas Health Science Center at San Antonio

The authors reported no potential conflict of interest relevant to this article.

A discrete maculopapular eruption in the bathing suit area



Diagnosis: Seabather's eruption

The patient was given a diagnosis of seabather's eruption (SBE), also called seabather's dermatitis or sea lice. SBE is an intensely itchy papular-erythematous dermatitis that can develop after an individual has been swimming in the ocean.¹

Planula larvae of the scyphomedusae *Linuche unguiculata*—commonly known as the thimble jellyfish—are to blame for this form of dermatitis.² *L unguiculata* are most frequently found in the waters of the Caribbean, Gulf of Mexico, southern United States, and South America.¹ Cases of SBE are most common in the spring and summer months, peaking in May.³ Those at highest risk include children, people with a history of SBE, and water sports enthusiasts (eg, surfers).⁴

L unguiculata larvae are small enough that they can make their way through the mesh of swimwear. As the bather gets out of the water, the suit acts as a sieve, with the water draining out and many of the larvae staying behind. Once the jellyfish are pressed against the skin, a defense mechanism is triggered and envenomation occurs. 1,5

As a result, patients will develop rashes not only in areas beneath their swimsuits, but also in the skin folds, such as the axilla, and between the upper thighs. For surfers, the trouble spots are the chest and abdomen—places where the body rubs up against the surfboard.^{3,6}

Onset does not occur immediately.

Rather, it takes several hours for the lesions to develop, and new ones may continue to develop for days.⁵ Immediate stinging sensations are associated with prior cases of SBE and suggest a sensitization to the antigen.³

• Not all reactions are the same. Some people will have a severe response, while others appear to be immune.² More extreme systemic symptoms, such as fever, chills, nausea, malaise, sneezing, dyspnea, vomiting, headache, abdominal pain, and diarrhea have been seen in children and in cases of extensive envenomation.^{4,6}

"Swimmer's itch" is included in the differential

Other possible causes of pruritic rashes like the one our patient had (TABLE) include:

- Cercarial dermatitis, also known as swimmer's itch, is a maculopapular inflammation characterized by pain, prickling, and pruritus. It develops several hours after bathing in freshwater and is limited to exposed areas of the body. The cause of the dermatitis? The larval trematodes of *Shistosoma* and *Trichobilharzia*.⁵
- Phytophotodermatitis is an erythematous pruritic inflammation of the skin with vesicles and bullae. The eruption, which is often hyperpigmented, occurs when an individual spends time in the sun after coming into contact with light-sensitive botanicals, such as limes. ⁷

The differential for a pruritic, erythematous maculopapular rash^{5,7}

Condition	Characteristics
Cercarial dermatitis	A maculopapular inflammation characterized by pain, prickling, and pruritus that develops several hours after bathing in freshwater and is limited to exposed areas of the body.
Phytophotodermatitis	An erythematous pruritic inflammation of the skin, with vesicles and bullae appearing with hyperpigmented streaks along the body. It occurs when an individual spends time in the sun after coming into contact with light-sensitive botanicals.
Infectious folliculitis	An infection of the hair follicle resulting in the formation of multiple pustules. <i>Pseudomonas aeruginosa</i> folliculitis is associated with hot tub use.
Seabather's eruption	An erythematous pruritic papular dermatitis that develops several hours after exposure to ocean water. It is limited to areas of high friction and those covered by swimwear.
Grover's disease	A pruritic dermatosis of scaling papules distributed along the trunk that mainly affects middle-aged men. Onset is associated with high fever, intense exercise, and significant sun exposure.

>

the trouble spots are the chest and abdomen places where the body rubs up against the surfboard.

For surfers.

■Infectious folliculitis is an infection of the hair follicle resulting in the formation of multiple pustules. *Pseudomonas aeruginosa* folliculitis, often called hot tub folliculitis, may be pruritic and tender.⁷

• Grover's disease is also known as transient acantholytic dermatosis and generally affects middle-aged men. It is a pruritic dermatosis of scaling papules that are distributed along the trunk and can show confluence. Although the cause is unknown, it has been linked with cases of high fever, intense exercise, and significant sun exposure.

Treatment usually isn't needed

SBE usually resolves spontaneously within a week or 2.1 If treatment is necessary, start with topical corticosteroids and oral antihistamines. If this proves insufficient, move on to oral corticosteroids1 (strength of recommendation

[SOR]: **C**). To minimize risk, swimmers should remove their bathing suits and shower as soon as possible after leaving the water^{4,6}(SOR: **C**).

Benadryl does the trick

We advised our patient to take diphenhydramine (Benadryl) and the itching went away. We also encouraged him to remove his bathing suit and shower as soon as possible after going in the ocean.

CORRESPONDENCE

Blake Fagan, MD, MAHEC Family Medicine Residency Program, 118 W.T. Weaver Boulevard, Asheville, NC 28804; blake.fagan@mahec.net

Strength of recommendation (SOR)

- A Good-quality patient-oriented evidence
- B Inconsistent or limited-quality patient-oriented evidence
- Consensus, usual practice, opinion, disease-oriented evidence, case series

>

We encouraged our patient to remove his bathing suit and shower as soon as possible after going in the ocean.

References

- Rossetto AL, Dellatorre G, Silveira FL, et al. Seabather's eruption: a clinical and epidemiological study of 38 cases in Santa Catarina State, Brazil. Rev Inst Med Trop Sao Paulo. 2009;51:169-175.
- Black NA, Szmant AM, Tomchik RS. Planule of the scyphomedusa *Linuche unguiculata* as a possible cause of seabather's eruption. *Bulletin of Marine Science*. 1994;54: 955-960.
- Tomchik RS, Russell MT, Szmant AM, et al. Clinical perspectives on seabather's eruption, also known as 'sea lice.' *JAMA*. 1993;269:1669-1672.
- 4. Kumar S, Hlady WG, Malecki JM. Risk factors for seabather's
- eruption: a prospective cohort study. Public Health Rep. 1997;112:59-62.
- Haddad V, Lupi O, Lonza JP, et al. Tropical dermatology: marine and aquatic dermatology. J Am Acad Dermatol. 2009; 61:733-750.
- Wong DE, Meinking TL, Rosen LB, et al. Seabather's eruption: clinical, histologic and immunologic features. J Am Acad Dermatol. 1994;30:399-406.
- Wolff K, Johnson RA. Fitzpatrick's Color Atlas and Synopsis of Clinical Dermatology. 6th ed. New York: McGraw-Hill; 2009. Available at: http://www.accessmedicine.com/resourceTOC. aspx?resourceID=45. Accessed August 6, 2010.

Improving Medication Adherence in Chronic Disease Management



- Review the impact of poor medication adherence on clinical outcomes
- Identify and address barriers to adherence
- Apply smart communication techniques and other strategies to promote adherence
- Know when and how pharmacists, case managers, and nurses can provide supportive interventions

Earn FREE CME credit for this and other supplements online. Click on CME at jfponline.com



FACULTY

>> Stephen A. Brunton, MD, FAAFP
Adjunct Clinical Professor of Family
Medicine, University of North Carolina at
Chapel Hill, Chapel Hill, North Carolina;
Executive Vice President for Education,
Primary Care Education Consortium,
Charlotte, North Carolina

