



# Make the Diagnosis

**A** 28-year-old female with no significant medical history presented for the evaluation and treatment of persistent acne. Upon questioning, the patient noted an asymptomatic eruption on her palms consistently induced after exposure to water. The patient denied any significant pain associated with the eruption and had no history of hyperhidrosis. Her only medication was an oral contraceptive, and there were no known drug allergies. She denied any family history of similar complaints. On exam, white, slightly translucent papules on the palms were noted within 10 min of water exposure. The palmar skin became edematous and excessive wrinkling was observed. The eruption resolved about 10 min after drying her hands with no significant sequelae.



Courtesy Simon Birk and Dr. Adam J. Mamelek

## Make the Diagnosis:

- A. Dyshidrotic eczema
- B. Aquagenic wrinkling of the palms
- C. Aquagenic urticaria

See page 40.

**Executive Editor** Kathy Scarbeck, MA  
**Editor** Elizabeth Mechcatie, BSN, MA  
**Senior Editors** Therese Borden, PhD; Jeff Evans; Catherine Hackett; Gina L. Henderson, MS; Susan Hite; Katie Wagner Lennon; Mark S. Lesney, PhD; Lora T. McGlade, MS; Catherine Cooper Nellist; Richard Pizz; Jennifer Smith; Glenn S. Williams  
**Associate Editors** Lucas Franki, Richard Franki, Gwendolyn B. Hall, Jane Locastro, Christopher Palmer  
**Director, Social Media** Kyla M. Clark, MBA  
**Web Content Editors** Victoria D'Angelo, Mollie Kalaycio, Christina Manago, Teraya Smith, Kathryn Wighton  
**Reporters** *Denver:* Bruce Jancin; *Midwest:* Alicia Gallegos; *Parsippany, N.J.:* Erik Greb, Jake Remaly; *Philadelphia:* Nick Andrews, Mitchel L. Zoler, PhD; *San Diego:* Doug Brunk; *Seattle:* M. Alexander Otto, PA, MMS; *Southeast:* Sharon Worcester, MA; *Washington:* Gregory Twachtman

**Creative Director** Louise A. Koenig  
**Manager, Art Directors** Elizabeth Byrne Lobdell  
**Art Directors** Bonnie Becker, Tom C. Lore  
**Director, Production/Manufacturing** Rebecca Slebodnik  
**Production Specialists** Maria Aquino, Valerie Carver

**Junior Digital Developers** Mark Horvath, James Owen  
**Director, Web Production** Sunita Edwards  
**Digital Projects Lead** Kayla Lenhardt  
**Web Production Specialists** Gbolahan Alabi, Schanae Rascoe, Michael Sellers  
**Digital Strategist/Project Manager** Andrew Mintz  
**Desktop/Network Services Support Manager** Jaime Ospino  
**Senior Systems Support Administrator** Kenny Wright  
**Credit Supervisor** Patricia H. Ramsey

## Sales

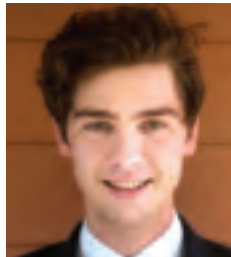
**Group Publisher** Sally Cioci 973-290-8215, scioci@mdedge.com  
**Digital Account Manager** Alison Paton 973-206-9063 apaton@mdedge.com  
**Senior Director Classified Sales** Tim LaPella 484-921-5001, tlapella@mdedge.com  
**Advertising Offices** 7 Century Drive, Suite 302, Parsippany, NJ 07054-4609, 973-206-3434, fax 973-206-9378  
**Reprint/Eprint Contacts**  
 United States, its territories and possessions:  
**Wright's Media** 877-652-5295, frontline@wrightsmedia.com  
 Global: **Content Ed Net** 267-895-1758, www.contentednet.com



## Aquagenic wrinkling of the palms

BY SIMON BIRK, AND  
ADAM J. MAMELAK, MD

**A**quagenic wrinkling of the palms (AWP) is a condition characterized by excessive wrinkling and sudden appearance or aggravation of white papules and plaques localized to the palms upon exposure to water. This eruption can be accompanied by a mild burning or tingling sensation, which will



Mr. Birk



Dr. Mamelak

subside with the rest of the symptoms in minutes to hours after drying.<sup>1</sup>

AWP is most frequently associated with cystic fibrosis (CF).<sup>2</sup> It can be observed in up to 80% of CF patients and is considered a clinical sign of the disease. AWP can be present in CF carriers to a lesser extent,<sup>2,3</sup> and has also been associated with focal hyperhidrosis, atopic dermatitis, Raynaud phenomenon, and COX-2 inhibitor use.<sup>4</sup>

While a definitive cause is unknown,

it is thought that AWP is caused by dysregulation of sweat glands in the palms through increased expression of aquaporin, a protein crucial in the transport of water between cells.<sup>5</sup>

AWP is quite rare and benign in nature. However, because of its strong association with CF, genetic screening should be considered in asymptomatic patients. Our patient had been screened in the past and is not a CF carrier. Often, the itching or burning associated with CF is mild and easily controlled. The patient was placed on low-dose isotretinoin for treatment of her acne. Interestingly, the patient claimed her eruption no longer appeared after starting isotretinoin therapy. To our knowledge, this is the first reported case of AWP resolving with isotretinoin use.

This case and photo were submitted by Mr. Birk, University of Texas, Austin, Texas; and Dr. Mamelak, Sanova Dermatology, in Austin. Donna Bilu Martin, MD, edited the column. ■



Courtesy Simon Birk and Dr. Adam J. Mamelak



Dr. Bilu Martin is a board-certified dermatologist in private practice at Premier Dermatology, MD, in Aventura, Fla. More diagnostic cases are available at [MDedge.com/Dermatology](http://MDedge.com/Dermatology). To submit a case for possible publication, send an email to [dermnews@mdedge.com](mailto:dermnews@mdedge.com).

### References

1. Katz M, Ramot Y. *CMAJ*. 2015 Dec 8;187(18):E515.
2. Tolland JP et al. *Dermatology*. 2010;221(4):326-30.
3. Gild R et al. *Br J Dermatol*. 2010 Nov;163(5):1082-4.
4. Glatz M, Muellegger RR. *BMJ Case Rep*. 2014. doi: 10.1136/bcr-2014-203929.
5. Kabashima K et al. *J Am Acad Dermatol*. 2008 Aug;59(2 Suppl 1):S28-32.