

# Look for Contact Dermatitis From Topical Vehicles

BY BRUCE JANCIN  
Denver Bureau

KOLOA, HAWAII — Next time a patient's skin disease isn't improving despite what ought to be effective topical medication, consider the possibility of occult allergic contact dermatitis caused by a chemical in the vehicle base, Dr. David E. Cohen urged at the annual Hawaii Dermatology Seminar sponsored by the Skin Disease Education Foundation.

This is a surprisingly common occurrence. Indeed, well over half of the 32 most common contact allergens are chemicals contained in medical vehicles, according to the results of patch testing



Parabens gets a lot of negative publicity, yet there are far worse offenders.

DR. COHEN

conducted in 2001-2002 by the North American Contact Dermatitis Group (NACDG) in nearly 5,000 patients with suspected allergic contact dermatitis.

Fragrance chemicals are the group of allergens that most often cause contact dermatitis due to topical medication vehicles, followed by preservatives, said Dr. Cohen, director of allergic, occupational, and environmental dermatology at New York University.

Fragrance chemicals are also the No. 1 cause of allergic contact dermatitis in the United States as a whole, as shown by the most recently published NACDG patch test results.

Leading the way is balsam of Peru, a liquid derived from a plant bark that consists of more than 180 aromatic compounds. Balsam of Peru tied with neomycin for second place on the NACDG allergen list, with each eliciting positive allergic patch test reactions in 11.6% of the 4,913 patients tested. Only nickel sulfate was a more frequent allergen, with a 16.7% positive test rate. Occupying third place on the NACDG list was fragrance mix, with a 10.4% rate.

When patch testing is performed on the general population rather than in patients with suspected allergic contact dermatitis, up to 4% of subjects prove sensitive to fragrance chemicals.

The preservative systems employed in topical medication vehicle bases are complicated. They fall within two major categories: the formaldehyde releasers and the nonformaldehyde preservatives.

Two of the six widely used formaldehyde releasers cracked the NACDG top 10: quaternium-15 (9.3%), and formaldehyde (8.4%). Methylchloroisothiazolinone (Kathon CG) was the nonformaldehyde preservative with the highest positive patch test rate, at 5.8%.

"Euxyl K400 is in a lot of cosmetic product bases. It's so important an allergen that in the European Union they're pretty much not allowing it in leave-on prod-

ucts, only in wash-on/wash-off products," according to Dr. Cohen.

Parabens is a nonformaldehyde preservative commonly used in topical corticosteroid bases, as is methylchloroisothiazolinone/methylisothiazolinone (Kathon CG). Parabens gets a lot of negative publicity, yet its positive patch test rate was a mere 0.6% in the NACDG study. There are far worse offenders. "If you look at Kathon or Euxyl K400 or quaternium-15, they're 3, 6, or 9 times more likely to be allergens

than parabens," the dermatologist continued.

He highlighted three emerging underappreciated contact allergens as worthy of special mention:

► **Benzalkonium chloride:** This quaternary ammonium preservative is now used in five times more products than thimerosal, including contact lens solutions, cosmetics, and shampoos.

► **Cocamidopropyl betaine:** It's an amphoteric surfactant present in more than

600 personal care products. It's especially popular for use in shampoos, soaps, and facial cleansers because it is nonirritating to the eyes.

► **Propylene glycol:** Like benzalkonium chloride, it can cause not only allergic contact dermatitis, but irritant contact dermatitis marked by nonimmunologically related burning and stinging.

The Skin Disease Education Foundation and this news organization are wholly owned subsidiaries of Elsevier. ■



## Assessing patient activity: An important clinical measure in COPD

The decline of lung function in patients with chronic obstructive pulmonary disease (COPD) is insidious. Its impact usually first becomes evident when patients perform daily activities.<sup>1</sup>

### ► Compensating for COPD

Too often, patients simply compensate for COPD by gradually changing their behavior to reduce physical exertion.<sup>1</sup> For example, they may take an elevator rather than climb the stairs—without even noticing that there is a problem. This behavior is compounded by the fact that early COPD is not always initially obvious on physical examination.<sup>2</sup> As a result, patients with COPD are typically not diagnosed until they have reached a moderate level of severity.<sup>1</sup>

### ► Establishing baseline activity levels

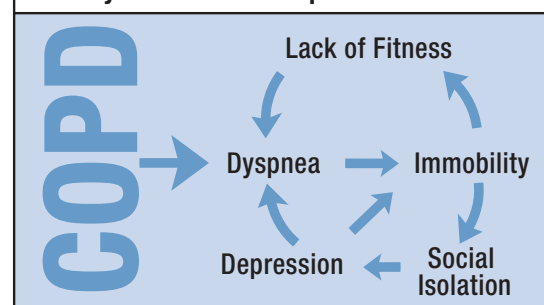
Once COPD is diagnosed, the physician's ongoing assessment should include the impact of the disease on patients' activity.<sup>1</sup> Establishing a baseline activity level is helpful because, in addition to using spirometry, physicians may use changes in activity levels to determine COPD severity. For instance, patients with moderate COPD may only have dyspnea on exertion, while those with severe COPD may experience fatigue and shortness of breath when doing everyday activities.<sup>1</sup>

### ► Breaking the cycle of COPD

The impaired ability to exercise negatively impacts patients' quality of life.<sup>1</sup> By improving patients' exercise tolerance—an important goal in COPD management—physicians can affect the cycle of COPD. Helping patients consider what

they can do physically, in addition to how they feel, can help lead to positive gains in other aspects of COPD and increase functional and social independence—another goal of COPD management.<sup>3</sup>

### The Cycle of Physical, Social, and Psychosocial Consequences of COPD<sup>1</sup>



From the *Global Strategy for the Diagnosis, Management and Prevention of Chronic Obstructive Pulmonary Disease*, Global Initiative for Chronic Obstructive Lung Disease (GOLD): Updated 2005. Available from <http://www.goldcopd.org>.

### ► Conducting ongoing activity assessments

It is valuable to monitor the activity level of patients with COPD—both at the time of diagnosis and after diagnosis.<sup>1,2</sup> Activity assessment is a key indicator that may help physicians evaluate the clinical efficacy of COPD treatments.

**References:** 1. Global Initiative for Chronic Obstructive Lung Disease. *Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease: Updated 2005*. Bethesda, Md/Geneva, Switzerland: National Heart, Lung, and Blood Institute/World Health Organization; 2005. Available at: <http://www.goldcopd.org>. Accessed March 8, 2006. 2. Celli BR, MacNee W, and ATS/ERS Task Force committee members. Standards for the diagnosis and treatment of patients with COPD: a summary of the ATS/ERS position paper. *Eur Respir J*. 2004;23:932-946. 3. Chronic obstructive pulmonary disease. In: Beers MH, Jones TV, Berkowits M, et al, eds. *The Merck Manual of Geriatrics*. 3rd ed. Merck Research Laboratories: Whitehouse Station, NJ. Available at: <http://www.merck.com/mrkshared/mmg/sec10/ch78/ch78a.jsp>. Accessed March 8, 2006.



SP272587

Printed in the U.S.A.

Copyright ©2006, Boehringer Ingelheim Pharmaceuticals, Inc. All rights reserved.

(03/06)

SV-11900

