Insulin Resistance Linked to Acanthosis Nigricans

BY DAMIAN MCNAMARA

SAN FRANCISCO — Insulin resistance may be present in patients with acanthosis nigricans, particularly if they are overweight or obese, and research increasingly supports a link between these conditions. A high level of clinical suspicion may be warranted, Dr. Jeffrey P. Callen said at a seminar on women’s and pediatric dermatology sponsored by Skin Disease Education Foundation (SDEF). “Sometimes it is a very subtle finding,” Dr. Callen, chief of dermatology and professor of medicine at the University of Louisville (Ky.), cited the case of an overweight young woman he saw for acne treatment. She had no menstrual irregularities, which can signal polycystic ovary syndrome, a condition also linked with insulin resistance. “Basically the reason we were alerted to the fact that she was insulin resistant is, during her complete examination, we noticed a velvety discoloration on the back of her neck, in a folded area of the skin.”

The patient was referred to her primary care physician and tested positive for insulin resistance. An insulin sensitizer such as metformin can help such a patient lose weight, after which their acanthosis nigricans would likely improve as well, said Dr. Callen. Some reports in the literature support use of insulin sensitizers to indirectly improve acanthosis nigricans (Ann. Pharmacother. 2008;42:1009-4), whereas others only point to modest benefits (J. Drugs Dermatol. 2006;5:884-9).

The clinical association became stronger after researchers found 78 (36%) of 216 patients newly diagnosed with type 2 diabetes also had acanthosis nigricans on the back of their necks (Endocr. Pract. 2004;10:101-6). Investigators at the University of Texas Southwestern in Dallas found risk varied by body mass index and ethnicity in this retrospective study. “They found those who had acanthosis nigricans were most often insulin resistant, overweight, and more of them were people of color,” Dr. Callen said. For example, 30 of 95 African American and 28 of 78 Hispanic diabetics in the study had acanthosis nigricans, compared with 1 of 39 whites and 0 of 4 Asians.

More recently, researchers found a higher prevalence of insulin resistance among obese women with acanthosis nigricans, compared with others without the skin hyperpigmentation (J. Dermatol. 2009;36:209-12). Specifically, 5 of 32 participants (16%) with acanthosis nigricans had insulin resistance, compared with none of the 34 women without the dermatologic condition. Acanthosis nigricans is a clinical diagnosis and histopathology generally is not required. Affected patients often come to a dermatologist “because they’ve noticed this hyperpigmentation on folds of the skin—the back of the neck or under the arms.” Although Dr. Callen sometimes orders fasting and postprandial insulin levels for patients with acanthosis nigricans, he thought most dermatologists would refer a patient for further work-up.

Dr. Callen disclosed no relevant conflicts of interest. SDEF and this news organization are owned by Elsevier.

Radiation’s Association to Skin Conditions Is Often Missed

BY AMY ROTHMAN SCHONFELD

BOCA RATON, Fla. — New guidelines for patient radiation dose management following neurointerventional procedures emphasize the need for physicians to inform and follow-up with patients about early and delayed adverse effects.

Often neither the patient nor a physician makes the association between the neurinterventional treatment the patient had months or years before and the skin rash, ulcer, or hair loss he currently has, according to Dr. Donald L. Miller, a coauthor of the guidelines, which were published by the Society of Interventional Radiology (J. Vasc. Interv. Radiol. 2009;20:S263-73).

“I think this will be a useful resource for clinicians,” said Dr. Miller, a professor of radiology and radiological sciences at the Uniformed Services University of the Health Sciences, Bethesda, Md., referring to a table on index (30 kg/m² vs. 26 kg/m²), vs. 45%), had a higher body mass index (16% vs. 10% for weight < 20 kg/m², and 28% vs. 24% for women 75-195 kg/m²). They also calculated sensitivity analysis confirmed several significant risk factors: body mass index higher than 25 kg/m² (odds ratio, 4.6), female gender (OR, 3.0), and therapy duration exceeding 9 days (OR, 5.9).

The lesions should be viewed as a symptom requiring an investigation of some underlying etiology, they wrote: “We recommend obtaining a punch biopsy; comparing platelet counts before, during, and after therapy; and performing appropriate laboratory investigations to rule out heparin-induced thrombocytopenia.” The authors reported having no financial conflicts with regard to the study.

Sensitivity Reaction Found To Cause Heparin Lesions

BY MICHELE G. SULLIVAN

Heparin-induced skin lesions are fairly common among patients receiving heparin for treatment or prophylaxis, especially among women, and those who are overweight or who have taken the drug for more than 9 days, a new study has determined.

Prior research had suggested that many cases were caused by heparin-induced thrombocytopenia. The study by Dr. Marc Schindewolf and colleagues contradicts those findings. In a delay of 1-4 weeks, the heightened sensitivity response caused the lesions in all 24 of the cases they observed (CMAJ 2009 Sept. 28; doi:10.1503/cmaj.081729). Dr. Schindewolf of the Hospital of the Johann Wolfgang Goethe University in Frankfurt, Germany, and his coauthors also postulated that heparin-induced skin lesions are probably much more common than currently believed. They have not yet been systematically investigated. For the study, the authors said the lesions were “延迟REACTIONS TO HEPARIN THERAPY”}

Often neither the patient nor a physician makes the association between the treatment the patient had months before and the skin rash he currently has.

To see a video of Dr. Callen discussing this association, visit www.youtube.com/ SkinAndAllergyNews.

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