

THE CLINICAL PICTURE

THOMAS SMITH III, MD

Department of Internal Medicine,
Grand Strand Medical Center,
Myrtle Beach, SC

VINOD E. NAMUDIRI, MD, MBA

Associate Program Director,
Internal Medicine Residency Program,
Department of Internal Medicine,
Grand Strand Medical Center, Myrtle Beach, SC

Erythema ab igne



FIGURE 1. To relieve chronic thoracic and lumbar back pain, the patient had been using a heating pad daily, often for several hours at a time.

A 42-YEAR-OLD MAN presented to his primary care physician with chief complaints of fatigue and worsening of severe chronic thoracic and lumbar back pain that he attributed to routine daily activity at his job, not to any specific antecedent trauma. Over-the-counter nonsteroidal anti-inflammatory agents and analgesics had provided moderate pain relief. A heating pad, which he had been using daily, often for several hours at a time, offered significant pain relief.

Physical examination revealed a large, hyperpigmented, dark brown, reticular patch

doi:10.3949/ccjm.85a.17015

with fine telangiectasias spread diffusely over his thoracic and lumbar back (**Figure 1**). The patch was nontender and nonblanching. There was no pruritus. The patient confirmed the area of hyperpigmentation corresponded to the area of heating pad use. Given this history and the physical findings, a diagnosis of erythema ab igne was made.

■ AN UNCOMMON CAUSE OF HYPERPIGMENTATION

Erythema ab igne is an uncommon thermally induced eruption associated with periods of repeated exposure of the skin to warm stimuli. It has been reported after holding a kerosene stove between the knees¹ and after balancing a laptop computer on the thighs,² but hot water bottles and heating pads³ are the most commonly reported causes.

Clinical findings and a compatible history are critical to the diagnosis. The involved area should have a history of heat exposure, followed by the development of asymptomatic persistent erythema and, in long-standing cases, hyperpigmentation in a distinct reticulate (netlike) distribution. Telangiectasias and atrophy may occur in advanced disease. In extreme presentations, bullae may develop.⁴

■ OTHER POTENTIAL CAUSES

Based on the history and findings on physical examination, conditions to consider in the differential diagnosis can include reticular eruptions such as livedo reticularis (associated with cold temperature changes), hypercoagulable states (antiphospholipid antibody syndrome, Sneddon syndrome), and connective tissue diseases (systemic lupus erythematosus).

Other causes of hyperpigmentation such as postinflammatory hyperpigmentation (associated with a prior eruption) and stasis derma-

titis (found in areas of poor venous drainage) may also be considered.

The frequent application of an external agent such as a drug or lotion, or even the use of a heating pad if it is made from rubber or is finished with an allergenic dye, raises the possibility of allergic contact dermatitis, but this was not likely in our patient because of the lack of pruritus and active dermatitis. Repeated application of a stimulus such as a heating pad with frequent rubbing can also precipitate lichen simplex chronicus, with thickened, hyperkeratotic skin. Another cause of hyperpigmentation on the back is notalgia parasthetica, which is typically unilateral, over the shoulder blades, and is associated with pain, pruritus, or other neurologic symptoms. Again, these were not present in our patient.

TREATMENT OPTIONS

The first-line treatment for erythema ab igne is to stop exposure to the offending heat source. The hyperpigmentation may slowly fade over several years. Cosmetic treatments such as laser therapy and depigmenting creams can be tried for persistent hyperpigmentation. Patients may be monitored for the small increased risk of cutaneous malignancies—particularly squamous cell carcinoma—arising within regions of erythema ab igne, particularly if atrophic or nonhealing in nature.

Clinicians should recognize the differential diagnosis of erythema ab igne in the appropriate clinical setting and provide the patient counseling regarding this preventable dermatosis. ■

REFERENCES

1. Arnold AW, Itin PH. Laptop computer-induced erythema ab igne in a child and review of the literature. *Pediatrics* 2010; 126:e1227–e1230.
2. Milgrom Y, Sabag T, Zlotogorski A, Heyman SN. Erythema ab igne of shins: a kerosene stove-induced prototype in diabetics. *J Postgrad Med* 2013; 59:56–57.
3. Waldorf DS, Rast MF, Garofalo VJ. Heating-pad erythematous derma-

titis 'erythema ab igne.' *JAMA* 1971; 218:1704.

4. Asilian A, Abtahi-Naeini B, Pourazizi M, Rakhshanpour M. Rapid onset of bullous erythema ab igne: a case report of atypical presentation. *Indian J Dermatol* 2015; 60:325.

ADDRESS: Vinod E. Nambudiri, MD, MBA, Department of Internal Medicine, Grand Strand Medical Center, 809 82nd Parkway, Myrtle Beach, SC 29572; vinod.nambudiri@hcahealthcare.com