

# Letter to the Editor

## Laptop Computer–Induced Erythema Ab Igne on the Left Breast

To the Editor:

An 18-year-old student presented with localized pigmentation on her left breast that had appeared 3 months prior and increased in severity. The patient was in good general health, on no regular medication, and denied prior or other skin problems. On examination there was an approximately 8×6-cm area of reticulated, brownish, macular pigmentation on a background of faint dusky erythema on the left breast, mainly over the upper medial quadrant (Figure). Skin examination was otherwise normal and the right breast was unaffected.

A clinical diagnosis of erythema ab igne was made and the patient was questioned about heat exposure to the area. It was explained to her that the condition typically results from repeated or prolonged exposure to heat sources; she then disclosed that she frequently used her laptop computer while reclining in bed with the laptop placed over her chest. She said she was aware that the underside of the laptop became warm during use, but she enjoyed the feeling of warmth on her skin. She had noted that the involved skin became erythematous while using her laptop and the erythema gradually became more persistent. Hyperpigmentation recently had appeared and was increasing in severity and spreading slightly. Aside from the pigmentation changes, the lesion was asymptomatic. The underside of the patient's laptop was inspected and noted to be palpably warmer on the left side when in use. The patient was advised to stop placing the laptop on her chest and the pigmentation gradually faded over several months.

Erythema ab igne (derived from the Latin term *ab ignis* [from fire]) is a characteristic dermatosis that results from repeated or prolonged exposure to heat that is insufficient to produce a burn.<sup>1</sup> Initial erythema secondary to vasodilatation is followed by pigmentation due to hemosiderin from extravasated erythrocytes and melanin shed from degenerate basal cells.<sup>2</sup> The characteristic reticulated pattern likely reflects the distribution of blood vessels in the superficial subcutaneous plexus, with the heat injury preferentially affecting the more vulnerable areas at the periphery of the vascular network. Epithelial atypia

and rarely malignant transformation may occur in long-term cases.<sup>2,4</sup>

Erythema ab igne historically was seen on the legs of individuals who resided in cold climates and therefore sat close to fires. The condition is uncommon in Malta, which has a warm Mediterranean climate. Erythema ab igne is more common in women, elderly patients, and hypothyroid patients.<sup>1</sup> It also may be seen in patients who use hot water bottles and heating pads to relieve long-term pain. Unusual reported causes of erythema ab igne include a heating blanket used in the intensive care unit,<sup>5</sup> therapeutic recliners that emit heat,<sup>6</sup> a car heater,<sup>7</sup> and even a heated bag of popcorn kernels.<sup>8</sup>

In recent years, cases of laptop computer–induced erythema ab igne on the thighs have been reported<sup>9–13</sup>; however, the case of erythema ab igne reported here involved the breast. Physicians should be aware of this potential hazard of laptop use and patients should be warned not to place the laptop directly on the skin. In some of the previously reported cases, skin changes were more marked on the right thigh because the heat source was on the right side of the laptop. The curious anatomical localization in this case highlights the importance of taking a thorough history to



Localized, reticulated, brownish hyperpigmentation on the left breast.

elucidate the cause of erythema ab igne. The distribution in each patient depends on the position of the heat source as well as the contours of the skin and the interposition of clothing. In this case, the material of the patient's bra may have provided some protection, which could explain the lack of involvement of the rest of the left breast.

Sincerely,  
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The author reports no conflict of interest.

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