

LETTER TO EDITOR (VIEWERS CHOICE)

ERYTHEMA AB IGNE - REPORT OF TWO CASES

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Erythema *ab igne* (EAI) is a cutaneous rash characterized by a reticulated net-like appearance and cutaneous hyperpigmentation. It's caused by chronic exposure to heat or infrared radiation of insufficient intensity to cause burns and usually progresses over weeks to months.^{1,2} The pathophysiology of EAI isn't well understood. It's known that heat induces epidermal damage and partial occlusion of dermal capillaries, leading to fibrosis and subsequent deposition of hemosiderin, which is responsible for its characteristic brownish purple color.^{1,2,3}

Over time, the presumed cause of this condition has evolved. Initially linked to factors such as open or coal-fueled fires, wood-burning stoves, and kerosene lamps, the sources of lesion have since shifted to encompass modern devices like laptops and other heat-producing electronics.^{1,3,4}

The first case the authors describe is that of a 14-year-old female adolescent, previously healthy, that presented to the emergency department (ER) because of a non-painful reticulated erythema on the inner surface of the legs, more prominent on the right (Figure 1), with an evolution of 1 month. She reported daily and prolonged exposure of the affected area to an electric space heater.

After multidisciplinary discussion, it was decided to follow up and further evaluate the progression of both skin lesions in a dermatology outpatient consult. Analytical and immunological studies were conducted for etiological investigation. Complete blood count, ionogram and urine analysis showed no abnormalities; inflammatory parameters (erythrocyte sedimentation rate, C-reactive protein, procalcitonin) were negative; immunoglobulin levels (IgA, IgG, IgM, IgD, and IgE), complement factors C3/4 were within the reference range; panels of anti-nuclear antibodies, anti-dsDNA, anti-neutrophil cytoplasmic antibodies, and ENAs were negative. The diagnosis of EAI was ascertained, considering the suggestive exposure, absence of analytical parameters typical of other differential diagnoses (livedo racemosa, systemic lupus erythematosus) and gradual, almost complete resolution of the lesions with avoidance of exposure in the following months.

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Figure 1. A1/A2 Erythema ab igne secondary to use of a space heater (Case 1).

The second case concerns a 12-year-old male adolescent, previously healthy, that presented to the ER because of a non-painful reticulated brownish erythema on the anterior aspect of the right thigh with a 2-month evolution (Figure 2). He reported daily and prolonged exposure of the affected area to the underside of his laptop.

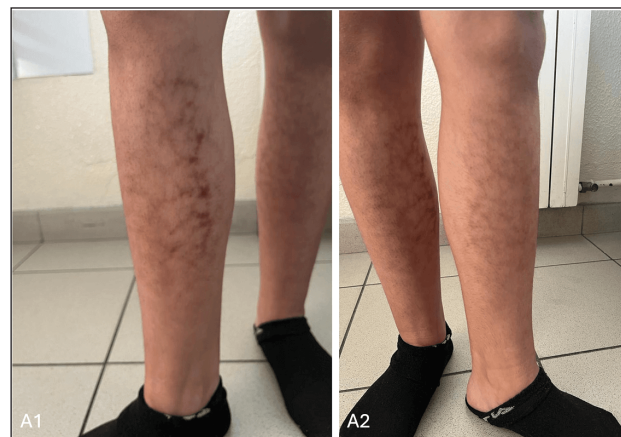


Figure 2. Erythema ab igne secondary to use of laptop directly over thigh (Case 2).

They both denied trauma, fever, joint pain, itching or other accompanying complaints. In both cases, popliteal, posterior tibial, and dorsalis pedis pulses were present, broad and symmetrical bilaterally. No mucosal changes were noted.





The diagnosis of EAI is clinical but, when performed, skin biopsy may reveal dilated blood vessels, pigment incontinence and interface dermatitis. Although often benign, EAI may indicate chronic inflammation or systemic disease, warranting further investigation as well as exclusion of differential diagnosis.^{1,2}

Treatment of EAI involves primarily the removal of the heat source and rarely requires medication.^{1,2,3} Although the prognosis is excellent with early diagnosis, delay can lead to permanent discoloration or, in very rare cases, development of malignancy.¹ The incidence of EAI in children and adolescents has increased in recent years due to improper use of electronic devices^{1,5}, and physicians should be aware of this diagnosis when facing a suggestive clinical history.

Compliance with Ethical Standards

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Conflict of Interest: None

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