

# Dermatology case

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A eleven-year-old boy, with no relevant pathological history or usual medication, was referred to Dermatology consultation due to asymptomatic cutaneous lesion in the anterior region of the left thigh with one year of evolution.

Physical examination revealed a macular lesion, with imprecise limits, reticulated pattern of erythematous-violet coloration, located on the anterior region of the left thigh (Figures 1 and 2). The lesion was painless to the touch and did not disappear with digital pressure. Remaining physical examination with no other relevant findings.

## What is your diagnosis?



Figure 1



Figure 2

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## DIAGNOSIS

Laptop Computer-Induced Erythema *ab Igne*.

## DISCUSSION

Erythema *ab Igne* consists of a localized reticular erythematous and posteriorly pigmented, sometimes, telangiectatic dermatosis, caused by prolonged and repeated exposure to heat.<sup>1</sup> The lesions are located in the areas of incidence of the heat source, having irregular contours due to the interposition between the skin and the clothing.

Temperatures between 43 and 47°C are sufficient to cause these lesions.<sup>2</sup>

Numerous sources of heat were reported as the cause of these lesions. In the elderly, erythema *ab Igne* develops due to the abusive use of hot compresses or electric blankets.<sup>3</sup> Repeated or prolonged exposure to a heater, steam radiator or brazier is a common cause.

The lesions are very characteristic; initially a slight transient erythema develops, but with prolonged and repeated exposure the lesion becomes permanent, with a reticular and hyperpigmented appearance.<sup>1,2</sup> Exceptionally it can develop malignancy for squamous cell carcinoma.<sup>1,2</sup>

Some differential diagnoses with dermatosis that manifest with poikiloderma, livedo reticularis, vasculitis and contact dermatitis should be considered. The diagnosis is clinical and the treatment is the eviction of the heat source. Complete resolution of the lesions may occur in months if they are still in an early stage. In case of doubt biopsy of the lesion may be performed.<sup>2</sup>

Laptop Computer-Induced Erythema *ab Igne* is a dermatosis in rise and has appeared in younger and younger ages. Characteristically it is located on the thighs and is asymmetrical, more typically on the left thigh. The heat source comes from the battery or the fan normally located on the left side.<sup>3,4</sup>

In this case the child referred prolonged use of the laptop on the thighs (two to three hours a day).

Based on the history and clinical findings a diagnosis of erythema *ab Igne* secondary to laptop use was made. The use of a protective pad was recommended and an appointment was scheduled in three months. At the second visit, there was minimal clinical improvement, and counselling was reinforced.

The recent popularity of laptop computers and other electronics emitting strong heat has made erythema *ab Igne* a problem in younger generations.

## ABSTRACT

We report the case of a child with a laptop-induced erythema *ab Igne*.

Erythema *ab Igne* is an hyperpigmented and reticulated erythema that results from prolonged thermal radiation exposure insufficient to cause burn. It has been described in patients using portable electronics devices including laptops. The lesions are characteristically located on the thighs and asymmetric (left side). The diagnosis is based on the clinical appearance of the lesions and exposure history. The treatment is the avoidance of heat source.

**Keywords:** Dermatosis, erythema, laptop computer.

## RESUMO

Relatamos o caso de uma criança com um eritema *ab Igne* induzido pelo computador portátil.

Eritema *ab Igne* consiste num eritema reticulado e hiperpigmentado que resulta da exposição prolongada à radiação térmica insuficiente para causar queimadura. Foi descrito em pacientes que utilizam dispositivos eletrónicos portáteis, incluindo computadores portáteis. As lesões estão caracteristicamente localizadas nas coxas e são assimétricas (lado esquerdo). O diagnóstico baseia-se na aparência clínica das lesões e na história de exposição. O tratamento é evitar a fonte de calor.

**Palavras-chave:** Computador portátil, dermatose, eritema.

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