

Erythema Ab Igne: A Dermatological Clinical Pearl for Family Medicine Practitioners

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Abstract

Erythema Ab Igne is a cutaneous condition caused by the repeated prolonged exposure to infrared radiation or heat. It is described as a reticulated hyperpigmented skin condition, and while uncommon it remains an important diagnostic clue for family medicine practitioners which warrants further evaluation. Such a condition can be associated with chronic pain and chronic pain syndromes such as musculoskeletal pain, pancreatitis and malignancy related pain. Such a cutaneous finding can serve as a clinical indication for further questioning and evaluation from a medical standpoint. We present a case of a 55 year old male with chronic lower back pain who developed erythema ab igne from prolonged use of a heating pad. This case highlights the importance of recognizing such a cutaneous finding as both a dermatologic condition and a clinical sign of underlying chronic disease.

1. INTRODUCTION

Erythema ab igne is a localized reticular erythematous hyperpigmented cutaneous finding from repeated and prolonged exposure to low grade heat sources that are insufficient to cause a burn [1]. The skin typically presents with a net like brownish or violaceous discoloration which is often asymptomatic but can be associated with mild pruritus [1]. Prolonged exposure of such sources can lead to epidermal atrophy, hyperkeratosis and even, although rare, malignant transformation such as squamous cell carcinoma or merkel cell carcinoma [2].

Historically such a cutaneous finding was associated with chronic exposure to open fires or stoves, however such findings are seen with increasing utilization of electronics and modern heat sources [3]. Diagnosis is one that is clinical and relies on a thorough and careful history of such exogenous heat exposure as erythema ab

igne can mimic other reticulated dermatoses such as livedo reticularis or various vasculopathies [4-5].

2. CASE PRESENTATION

A 55 year old male presented to the office from his primary care physician given a persistent rash on his lower back, the lesion had gradually developed over several months and was asymptomatic. The patient had no other pertinent medical history and offered no complaints of lower back pain to this physician at this time. On a physical exam the lower lumbar region of this patient revealed a well demarcated reticulated erythematous patch, with no ulceration, nodularity or induration was noted (Figure 1). When questioned about the area and the patients daily habits he admitted to chronic back pain and application of a heating pad daily. Given the clinical findings and history it was determined that this eruption was consistent with erythema ab igne.



Figure 1. Lower lumbar region of this patient revealed a well demarcated reticulated erythematous patch, with no ulceration, nodularity or induration

3. DISCUSSION

Erythema ab igne is an example of how cutaneous findings can serve as a window into underlying patient behavior and various medical conditions. It results from repeated exposure to thermal energy, leading to dermal vascular damage, hemosiderin deposition and epidermal hyperpigmentation in a reticular pattern [6]. The thermal energy leads to damage of superficial dermal vessels resulting in increased vascular permeability and extravasation of red blood cells which are then broken down and leads to hemosiderin deposition leading to the classic manifestation of erythema ab igne [6]. Recognizing such features is essential for distinguishing erythema ab igne from other reticulated dermatoses and for avoiding unneeded investigations.

This particular case of erythema ab igne underscores the importance of recognizing such a cutaneous finding as a dermatologic clue in primary care. This particular condition which is most often benign allows those in primary care a unique position to further assess patients pain management strategies and redirect them toward safer alternatives [1].

For patients presenting with Erythema ab igne, management consists of cessation of the offending heat source, monitoring for resolution and a dermatology referral if lesions persist or show suspicious changes [1]. Furthermore the presence of such a cutaneous finding provides an opportunity for explore the etiology of chronic pain, and while musculoskeletal etiologies are most common clinicians should also remain vigilant for less obvious causes such as malignancy related pain syndromes, particularly in older adults or those with systemic symptoms [7].

4. CONCLUSION

Erythema ab igne remains a relevant clinical pearl for primary care practitioners, with recognition of such a cutaneous finding not only guides dermatologic management but also alerts clinicians to possible underlying chronic conditions driving the utilization of external heat sources.

REFERENCES

- [1] Kettelhut EA, Traylor J, Sathe NC, et al. Erythema Ab Igne. [Updated 2022 Dec 24]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK538250/>
- [2] Sigmon, J. R., Cantrell, J., Teague, D., Sanguenza, O., & Sheehan, D. J. (2013). Poorly differentiated carcinoma arising in the setting of erythema ab igne. *The American Journal of dermatopathology*, 35(6), 676–678. <https://doi.org/10.1097/DAD.0b013e3182871648>
- [3] Arnold, A. W., & Itin, P. H. (2010). Laptop computer-induced erythema ab igne in a child and review of the literature. *Pediatrics*, 126(5), e1227–e1230. <https://doi.org/10.1542/peds.2010-1390>
- [4] Johnson, N. M., Shvygina, A., Luyimbazi, D. T., & Grider, D. J. (2021). Rare mimic of angiosarcoma: Erythema ab igne with reactive angiomatosis. *Journal of cutaneous pathology*, 48(10), 1298–1302. <https://doi.org/10.1111/cup.14072>
- [5] Shahin, A. B., Coias, J., Mastin, M., Lehman, J. S., & Anderson, K. (2025). A case of erythema ab igne with histopathological features resembling keratosis lichenoides chronica. *Pediatric dermatology*, 42(1), 196–198. <https://doi.org/10.1111/pde.15715>

- [6] Shahrads, P., & Marks, R. (1977). The wages of warmth: changes in erythema ab igne. *The British journal of dermatology*, 97(2), 179–186. <https://doi.org/10.1111/j.1365-2133.1977.tb15063.x>
- [7] Hale, J. M., Chambers, F., & Connell, P. R. O. (2000). Erythema ab igne: an unusual manifestation of cancer-related pain. *Pain*, 87(1), 107–108. [https://doi.org/10.1016/S0304-3959\(00\)00265-7](https://doi.org/10.1016/S0304-3959(00)00265-7)

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