Erythema annulare centrifugum in a child

Laurence Meloche MD, Laurence Garon MD, Jerome Coulombe MD

■ Cite as: *CMAJ* 2022 December 19;194:E1690. doi: 10.1503/cmaj.221246

An 8-year-old boy presented to the dermatology clinic with a 1-month history of painful, desquamative, crusted and ring-shaped polycyclic rash (Figure 1A and B) that was initially limited to his neck and axillae before it spread to his trunk and arms. The patient's medical history was unremarkable, and he was not taking any medication. On physical examination, we found no sign of tinea infection. Skin bacterial cultures were negative. We prescribed empiric oral cephalexin (50 mg/kg/d for 1 wk) for suspected impetigo, but the lesions did not improve. A punch biopsy (4 mm) of the right flank showed subacute spongiotic dermatitis with confluent parakeratosis and a perivascular infiltrate with lymphocytes and eosinophils, consistent with the diagnosis of superficial erythema annulare centrifugum. We prescribed topical betamethasone diproprionate cream for 3 weeks, which resulted in complete clearance of the lesions. At 1-year follow-up, the patient had no sign of recurrence or scarring.

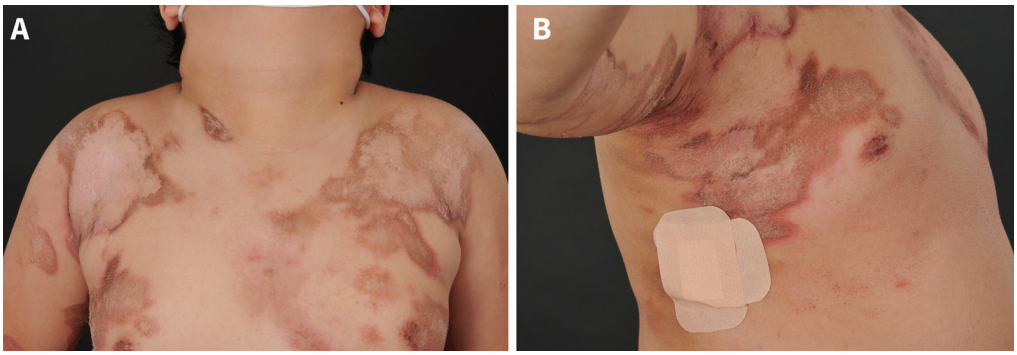

Figure 1: (A) Polycyclic and annular erythematous desquamative plaques on the torso and (B) crusted plaques on the upper arms and armpit area of an 8-year-old boy with a recent diagnosis of superficial erythema annulare centrifugum.

Erythema annulare centrifugum is a benign inflammatory skin disease that can occur at any age, without gender predilection. The incidence is unknown. Superficial and deep subtypes have been described.[1] Pathophysiology is still uncertain and erythema annulare centrifugum has sometimes been associated with infections (particularly dermatophytic infections), foods, drugs, hematologic and endocrine diseases, and neoplasias.[1,2] In most cases, including this one, no triggering agent can be found. Extensive investigations are not mandatory in healthy patients. Superficial erythema annulare centrifugum usually presents as erythematous squamous plaques that grow centrifugally, and evolve over a few weeks into annular or polycyclic, elevated plaques with a clear centre and an internal scaly rim.[3] Erythema annulare centrifugum predominantly affects the trunk and proximal extremities, and can sometimes be pruritic. The differential diagnosis includes impetigo, annular psoriasis, granuloma annulare and tinea corporis. Erythema annulare centrifugum may regress spontaneously or recur over a period of months to years.[1] Diagnosis is mostly clinical, but a skin biopsy can help rule out other diagnoses. Group III and IV topical corticosteroids and oral antihistamines can provide symptomatic relief.

References

1. McDaniel B, Cook C. *Erythema annulare centrifugum*. Treasure Island (FL): StatPearls Publishing; 2021.
2. Kim DH, Lee JH, Lee JY, et al. Erythema annulare centrifugum: analysis of associated diseases and clinical outcomes according to histopathologic classification. *Ann Dermatol* 2016;28:257-9.
3. Kim KJ, Chang SE, Choi JH, et al. Clinicopathologic analysis of 66 cases of erythema annulare centrifugum. *J Dermatol* 2002;29:61-7.

Competing interests: Jerome Coulombe reports receiving honoraria for his role on an advisory board for Galderma Canada and received a conference travel grant by URIAGE Inc. No other competing interests were declared.

This article has been peer reviewed.

The authors have obtained parental consent.

Affiliations: Faculty of Medicine (Meloche), Université Laval, Quebec City, Que.; Faculty of Medicine, Division of Dermatology (Garon), Université de Montréal; Dermatology Division, Department of Pediatrics (Coulombe), CHU Sainte-Justine, Université de Montréal, Montréal, Que.

Correspondence to: Jerome Coulombe, jerome.coulombe@umontreal.ca

