

A Unique Manifestation of Erythema Annulare Centrifugum: A Case Report



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Background

Erythema annulare centrifugum (EAC) is a reactive phenomenon of the skin characterized by erythematous, annular patches or plaques that expand centrifugally with central clearing. Along the advancing edge of the lesions, a fine scale is often present, characteristically known as a “trailing scale”. These lesions, which frequently occur on the trunk and proximal extremities, may be asymptomatic or associated with pruritis. Lesions typically enlarge at a rate of 1-3 mm per day, however, the vast majority do not exceed 10 cm.

Although the precise etiology remains elusive, EAC is thought to represent a delayed hypersensitivity reaction to various agents. EAC has been observed in association with certain infections, autoimmune disorders, malignancies, pregnancy, and medications, including non-steroidal anti-inflammatory drugs, azoles, anti-malarials, and spironolactone, among others. The term “paraneoplastic erythema annulare centrifugum eruption” (PEACE) designates EAC associated with underlying malignancy, which most frequently involves lymphoproliferative leukemias and lymphomas. Despite these associations, most cases are idiopathic, with no identifiable causative agent.

The diagnosis of erythema annulare centrifugum is often made clinically. Histopathologic analysis, however, has utility in differentiating EAC from other annular erythematous lesions, namely annular psoriasis, tinea corporis, erythema marginatum, and erythema gyratum repens. A perivascular lympho-histiocytic epidermal infiltrate is characteristic of superficial EAC, whereas the deep variant of EAC is dominated by a mononuclear cell dermal infiltrate.

EAC is often self-limited, although systemic or topical steroids and antihistamines may provide relief. Some studies have also demonstrated erythromycin, upadacitinib, and apremilast to be effective.

In this discussion, we present an 85-year-old male with an intriguing case of erythema annulare centrifugum.

Case Presentation

An 85-year-old male with a history of non-melanoma skin cancer and interstitial dermatitis presented to the outpatient dermatology clinic for evaluation of an erythematous, annular skin lesion without scale across the right chest. This lesion had been present for two months and was asymptomatic. Current medications included clopidogrel, losartan, metformin, metoprolol, rosuvastatin, and nitroglycerin.

Biopsy revealed changes consistent with erythema annulare centrifugum (EAC). The patient was started on twice daily, biweekly triamcinolone acetonide 0.1% cream. The patient returned to the office twelve weeks later, reporting spread of the original eruption. In addition to the right chest, lesions now appeared on the mid to upper back and posterior scalp. The back featured prominent arcuate and annular lesions, intertwining into a captivatingly irregular pattern (*Figure 1*). The patient was maintained on the treatment regimen with gradual improvement over time.

Clinical Image



Figure 1 – Erythema annulare centrifugum
Large, erythematous arcuate and annular lesions across the back.

Discussion

Erythema annulare centrifugum is a reactive phenomenon of the skin characterized by erythematous lesions that spread centrifugally. These lesions, which can be arciform or annular in shape, may coalesce to form polycyclic patterns. In this discussion, we present the case of an 85-year-old male with progressively enlarging erythematous lesions, subsequently identified as biopsy-confirmed erythema annulare centrifugum.

The unique clinical image presented here contributes to the existing literature, providing valuable insight into the wide spectrum of EAC manifestations and offering a visual representation of its diverse nature. It underscores the importance for clinicians to maintain a heightened awareness of EAC, particularly when patients present with expanding, erythematous annular lesions.

Conclusion

Erythema annulare centrifugum is a rare skin disorder characterized by ring-like, erythematous lesions often accompanied by trailing scale. These lesions expand centrifugally and may form irregular shapes.

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