



INFLAMMATORY SKIN DISEASES (OTHER THAN ATOPIC DERMATITIS & PSORIASIS)

## **EOSINOPHILIC ANNULAR ERYTHEMA: A SUBSET OF WELLS' SYNDROME OR A DISTINCT ENTITY?**

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**Background:** Well's syndrome (WS), is a rare disease, which is characterized by tissue eosinophilia and variable clinical pictures. The histological mark of WS is the formation of flame figures which consist of eosinophil granule major basic protein encrusted on normal collagen. Eosinophilic annular erythema (EAE) is an uncommon benign acute eosinophilic dermatosis of unknown etiology, however, its relation to WS remains a source of controversy.

**Observation:** A 46-year-old woman presented with an non-pruritic annular lesions, on the trunk and proximal limbs, which appeared 4 months earlier. Its growth was centrifugal with erythematous- edematous margins, and a minimally scaly center. The dermatological examination showed annular-shaped hyperpigmented patches with infiltrated erythematous border on the trunk, both thighs and upper limbs. Extensive investigations showed no abnormalities, and in particular, no peripheral blood eosinophilia, and no evidence of an associated parasite infestation, infection, allergy, autoimmune condition or malignancy. Histopathological examination showed a perivascular and interstitial mixed infiltrate with abundant eosinophils, but without evidence of flame figures. Direct immunofluorescence test was negative. The diagnosis of EAE was strongly evoked and the patient was treated with topical corticosteroids for a month without any improvement. A second biopsy was therefore performed showing flame figures. The diagnosis of WS was then retained. The patient was treated with systemic corticosteroid with complete resolution of lesions. However, she underwent a recurrence three months later that was treated with topical corticosteroids.

**Key message:** Other authors have reported cases similar to our patient, with annular lesions, tissue eosinophilia, and no flame figures. Whether the lack of flame figures and degranulation of eosinophils is a central issue in defining EAE as a distinct entity will depend on further studies. We believe that the distinction between EAE and WS is arbitrary and may reflect the wide clinical polymorphism of WS and its histological dynamism.

