

Based on our experience, we believe that Nd:YAG laser should be considered in patients with multiple glomangiomas where other treatments may carry more risk or cause greater levels of pain.

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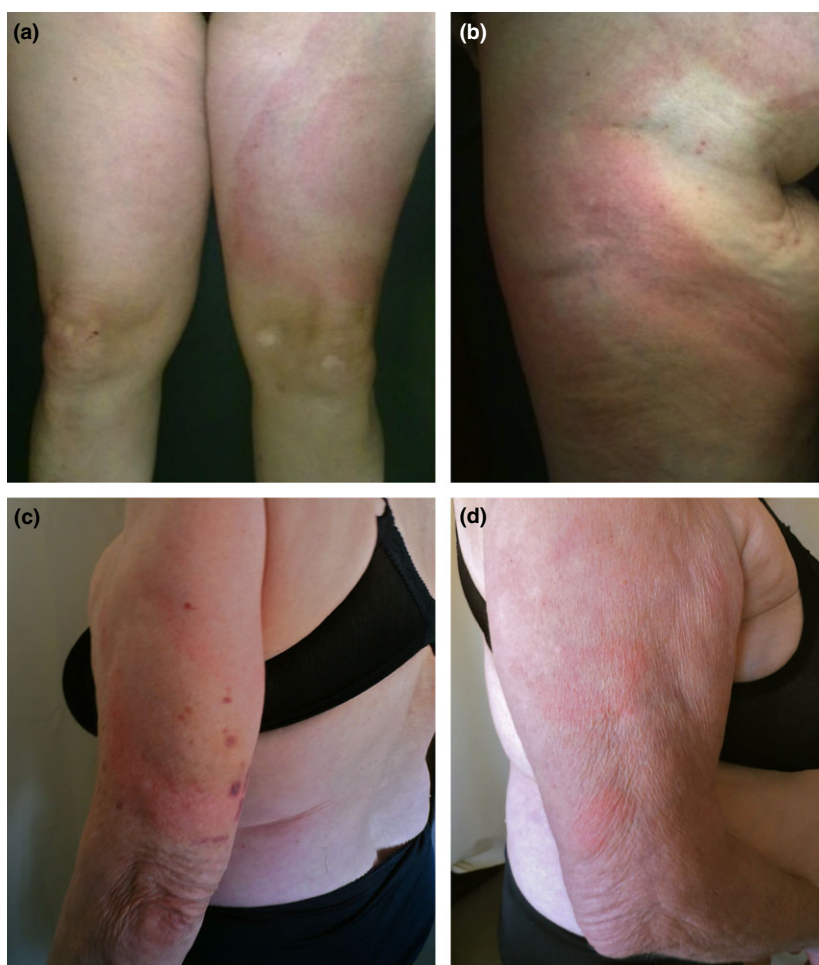
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## Erythema annulare centrifugum during rituximab treatment for autoimmune haemolytic anaemia

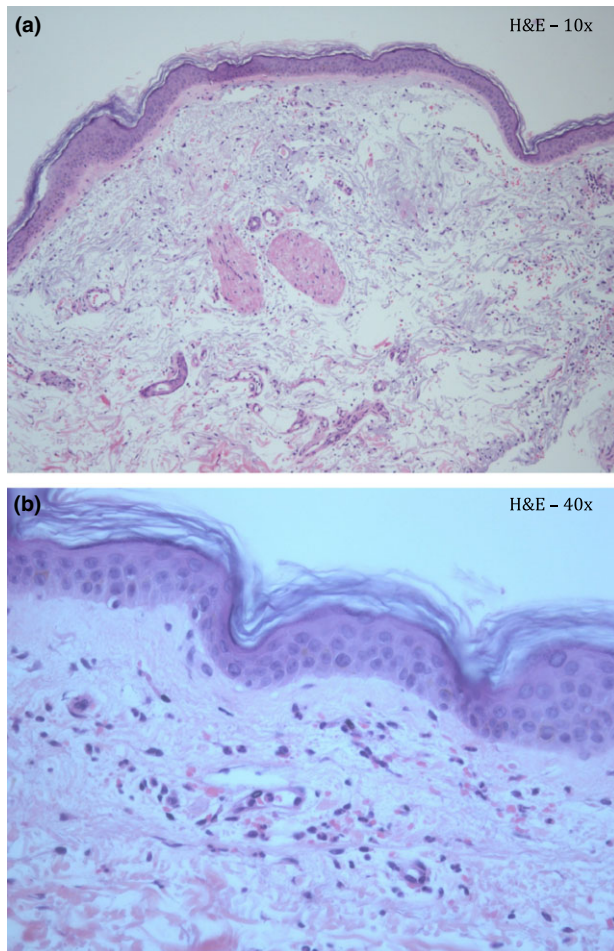
Editor

### Case report

A 70-year-old woman with autoimmune haemolytic anaemia (IgG1-mediated) had been under several immunosuppressant agents for 8 years with a satisfactory response until she was admitted for acute severe haemolytic anaemia. The patient was



**Figure 1** (a,b) Physical examination revealed well-defined erythematous plaques, with a smooth surface, arranged in a concentric and polycyclic shapes and located on the posterior surface of the thighs, hips and glutei. (c,d) Similar plaques were observed on the extensor surface of both arms/forearms.



**Figure 2** (a,b) Histopathological examination revealed an elastotic and oedematous dermis, with a lympho-histiocytic perivascular inflammatory infiltrate as well as focal erythrocyte extravasation. Minor aspects: mild hyperkeratosis and focal spongiosis.

successfully treated with intravenous rituximab (RTX), four infusions (500 mg EV). Recurrence occurred 9 months later and RTX was reintroduced (four infusions). One week after the third RTX infusion, the patient noticed a well-defined erythematous plaque on the right arm with burning sensation. After spontaneous resolution in 2 weeks, the patient received the fourth RTX infusion. One week later, an erythematous plaque on the right arm and forearm appeared, persisting for 6 weeks before dissemination with accompanying burning sensation.

The patient was then referred to a Dermatology appointment, presenting with bilateral and symmetrically distributed well-defined erythematous plaques, with a smooth surface, arranged in a concentric and polycyclic shapes and located on the extensor surface of both arms/forearms and posterior surface of the

thighs, hips and glutei (Fig. 1). No other relevant signs or symptoms were present.

The patient had a typical cushingoid phenotype, osteoporosis, hypertension and heart failure and was currently taking prednisolone 25 mg daily (0.3 mg/kg daily), esomeprazole, bisoprolol, furosemide, alendronic acid and colecalciferol. No new drug was started on the preceding months. Malignancies and infections (including borreliosis) were excluded. Diagnostic criteria for systemic lupus erythematosus were not met. The patient did not recall similar annular rashes before the use of RTX. A punch biopsy was performed and histopathological examination revealed an elastotic and edematous dermis, with a lympho-histiocytic perivascular inflammatory infiltrate as well as focal erythrocyte extravasation. Minor aspects: mild hyperkeratosis and focal spongiosis.

No further RTX infusions were given and gradual regression of the dermatosis occurred in 2 weeks. Clinical history and skin histology were compatible with the deep form of erythema annulare centrifugum.

### Discussion

Erythema annulare centrifugum (EAC) is a variant of figurate erythema, presenting with erythematous macules and papules that enlarge slowly by peripheral extension to form ringed, arcuate or polycyclic figures with central clearing. It has been traditionally divided into superficial and deep forms, the former presenting with trailing scales on the inside border and the latter infiltrated plaques with no superficial scale.<sup>1,2</sup> After confirming the diagnosis and excluding common assumed triggers (infections, malignancy and pregnancy),<sup>2</sup> a definite aetiology is still difficult to prove. EAC can be chronic or self-limiting and immunosuppressive medications are commonly given.<sup>2</sup>

Rituximab is a chimeric murine/human monoclonal antibody directed against the B-cell antigen: CD20. The cutaneous side-effects of RTX are frequent, but usually not serious.<sup>3</sup> They can be divided into infusion reactions, infections, skin malignancies and other, including Erythema Multiforme, Stevens–Johnson Syndrome, Toxic Epidermal Necrolysis, Bullous dermatitis and Paraneoplastic Pemphigus.<sup>4</sup> The onset of the reported reactions has varied from 1 to 13 weeks following RTX exposure.<sup>3</sup>

The temporal relationship with RTX administration and a concomitant autoimmune disease makes the authors speculate about the importance of immunological disturbance on the pathogenesis of EAC.

### In conclusion

- Erythema annulare centrifugum represents a clinical reaction pattern rather than a specific clinicopathological entity.<sup>1</sup>
- To the authors' knowledge, this is the first reported case of EAC after RTX therapy.

- Its onset is thought to be immunologically mediated.<sup>5</sup> Increasing use of biological agents and subsequent new discoveries from pharmacological immunomodulation may shed some light on its pathophysiology.

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# Secukinumab improves the signs and symptoms of moderate-to-severe plaque psoriasis in subjects with involvement of hands and/or feet: subanalysis of a randomized, double-blind, placebo-controlled, phase 2 dose-ranging study

## Editor

Psoriasis affecting the hands and/or feet has greater impact on quality of life than other forms of the disease and is more difficult-to-treat, as topical and systemic therapies and phototherapy are often ineffective, difficult to administer, and/or limited by toxicity effects.<sup>1,2</sup> Biologics targeting pro-inflammatory cytokines such as tumour necrosis factor (TNF) and interleukin

(IL)-12/23 have shown efficacy in managing moderate-to-severe plaque psoriasis<sup>3,4</sup> and have also demonstrated efficacy in the treatment of difficult-to-treat disease, including hand/foot psoriasis.<sup>5–7</sup> Secukinumab (Novartis Pharma AG, Basel, Switzerland) is a fully human IgG1κ anti-IL-17A monoclonal antibody that selectively suppresses the inflammatory cascade induced by IL-17A. The efficacy and safety of secukinumab for the treatment of moderate-to-severe psoriasis has been demonstrated in proof-of-concept and other phase 2 studies.<sup>8–10</sup> In a post hoc analysis of a multicentre, randomized, double-blind, placebo-controlled, dose-ranging phase 2 study,<sup>9</sup> we evaluated the effects of secukinumab in a subgroup of subjects with moderate-to-severe psoriasis involving the hands and/or feet.

A complete description of the design/methods for the primary study was published previously.<sup>9</sup> Subjects (N = 125) were randomized 1 : 1 : 1 : 1 : 1 to four subcutaneous secukinumab regimens (1 × 25 mg, 3 × 25 mg, 3 × 75 mg, 3 × 150 mg) or matching placebo at baseline and Weeks 4 and 8. After the 12-week treatment period, subjects entered a 24-week follow-up period. Subjects ≥18 years with a ≥6-month history of moderate-to-severe psoriasis (psoriasis area and severity index [PASI] score ≥12, overall body [6-point static] investigator's global assessment (IGA) score ≥3, and body surface area involvement ≥10%) were enrolled. Our analysis was conducted on a subgroup with a baseline hand/foot 5-point static IGA score ≥2 (Table 1). The palm or sole most seriously affected at baseline was assessed throughout the study. Whole-body outcomes were assessed using PASI scores.<sup>11</sup> Secukinumab's efficacy was assessed as the percentage of subjects achieving an IGA response at Week 12 (those achieving a score of 0 [clear] or 1 [almost clear/minimal] and a ≥2-point improvement on the 5-point hand/foot IGA scale compared with baseline). Percentages of subjects achieving PASI 75 (≥75% reduction in PASI score from baseline) and PASI 90 (≥90% reduction from baseline) responses were also evaluated at Week 12. Comparisons between secukinumab and placebo were performed using the Cochran–Mantel–Haenszel (CMH) test,

**Table 1** Investigator's global assessment (IGA) rating scale for hand and foot involvement

Score	Short description	Detailed description
0	Clear	No signs of plaque psoriasis
1	Almost clear/ Minimal	Just perceptible erythema and scaling
2	Mild	Light pink erythema with minimal scaling with or without pustules
3	Moderate	Dull, red, clearly distinguishable erythema with diffuse scaling, some thickening of the skin, with or without pustule formation
4	Severe	Deep or dark red erythema with clearly obvious diffuse scaling and thickening and numerous fissures with or without pustules