

## Dermato-venereological Quiz

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A 43-year-old lady had a six month history of recurrent skin eruption on the upper limbs and trunk. Examination showed annular erythematous skin eruption with slight scaling located symmetrically on the upper trunk and the extensor surfaces of both upper limbs (Figure 1). Individual lesions lasted for weeks and resolved without scarring. She also had malar erythema and her skin eruption worsened after sun exposure. There were no systemic symptoms, arthralgia, dry eyes or mouth, Raynaud's phenomenon, nor was she taking any medications. Her blood pressure and urine analysis were unremarkable. Blood tests for complete blood picture, erythrocyte sedimentation rate, renal and liver function tests were normal. Anti-nuclear antibody titre was 1/1080, anti-Ro and anti-La antibodies were positive, anti-DNA antibody and anti-Sm antibody were negative, C3, C4 and immunoglobulin pattern were normal. Skin scraping for microscopy and culture were negative for fungus. Skin biopsy was performed (Figures 2, 3 & 4).



**Figure 1.** Annular skin eruption on shoulder and upper arm.

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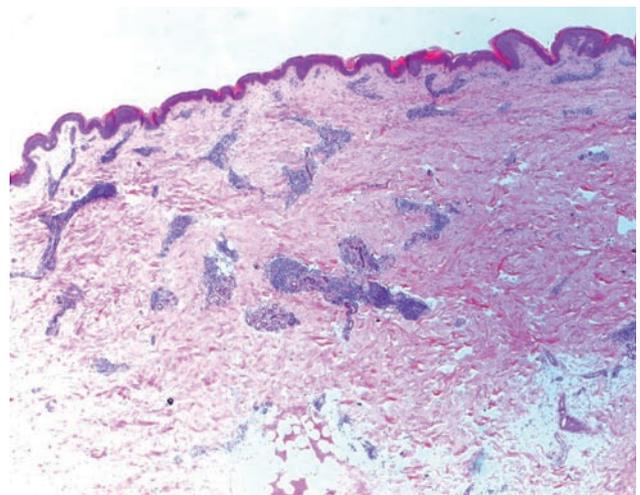
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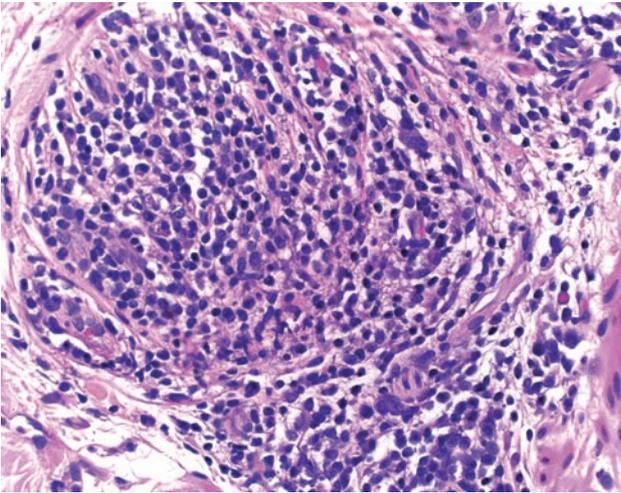
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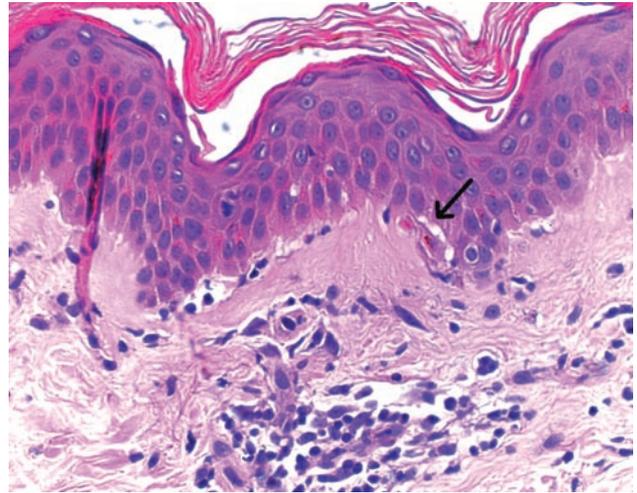
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**Figure 2.** H&E stain, Original magnification x 25.



**Figure 3.** H&E stain, Original magnification x 400.



**Figure 4.** H&E stain, Original magnification x 400.

## Questions

- 1) What is the most likely diagnosis for skin eruption on the upper limbs and trunk?
- 2) What are the differential diagnoses?
- 3) What histopathological findings are shown?
- 4) What systemic diseases may be associated with the skin eruption and positive anti-Ro antibody in serum?
- 5) What is the management for the skin eruption?

## Answers to Dermato-venereological Quiz on pages 108-109

- 1) Subacute cutaneous lupus erythematosus (SCLE) of annular polycyclic type is the most likely diagnosis.
- 2) The differential diagnoses include tinea corporis, erythema annulare centrifugum, Jessner's lymphocytic infiltrate, polymorphic light eruption, granuloma annulare and urticarial vasculitis.
- 3) In the dermis, there is perivascular and periadnexal inflammatory cell infiltration (Figure 2). The inflammatory cells consist of small lymphocytes and few plasma cells (Figure 3). In the epidermis, there is lichenoid tissue reaction with vacuolar change, small lymphocytes infiltrate into basal layer of epidermis with 'necrotic' keratinocytes (arrow in Figure 4). Alcian blue stain shows increased stromal mucin. Direct immunofluorescence stain was positive for C3 and immunoglobulins at the dermal-epidermal junction.
- 4) SCLE may be associated with systemic illnesses, such as systemic lupus erythematosus (SLE) and Sjogren's syndrome. Half of the SCLE patients fulfill (at least 4 of 11) criteria to be classified as SLE, and 10% of SCLE patients have serious systemic involvement from SLE. The baby of an affected mother with anti-Ro antibodies may develop neonatal lupus including congenital heart block. This is due to maternal placental transfer of anti-Ro antibodies to baby before birth.
- 5) We need to exclude drug induced SCLE, e.g. hydrochlorothiazide and diltiazem. Therapeutic measures include sun avoidance, protective clothing, broad spectrum sunscreens, topical steroids or calcineurin inhibitors, and oral hydroxychloroquine. It is important to screen for associated systemic diseases and refer the patient to medical department if necessary.