**Subcutaneous finger nodules**

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**Case**
A woman, aged 29 years, presented to her general practitioner (GP) with a 12-month history of multiple skin-coloured nodules on the palmar aspect of her fingers bilaterally. The nodules were painless, but frequently interfered with her work as a florist. On examination, the nodules were 1–2 cm in diameter, firm, mobile and non-tender to palpation (Figure 1).

A full blood count and angiotensin converting enzyme level were normal. Serology for rheumatoid factor and anti-cyclic citrullinated peptide (anti-CCP) were negative. A chest radiograph performed six weeks earlier for an unrelated complaint was reported as normal. Excisional skin biopsy showed lymphohistiocytic palisades surrounding degenerated collagen and mucin within the subcutis.

**Question 1**
What are your differential diagnoses for this case? What is the most likely diagnosis?

**Answer 1**
Possible differential diagnoses include:  
• rheumatoid nodules  
• sarcoidosis  
• deep fungal or bacterial infections  
• subcutaneous granuloma annulare (SGA)  
• necrobiosis lipoidica.

SGA was considered the most likely diagnosis for this patient. Rheumatoid nodules and cutaneous sarcoidosis were excluded on the basis of negative laboratory findings and imaging. The presence of mucin deposition on histology made necrobiosis lipoidica unlikely.1,2

Although the exact cause of SGA is unclear, it is known to be a type IV hypersensitivity reaction to dermal components, in which inflammation is mediated by tumour necrosis factor alpha.3

**Question 2**
How does the diagnosed condition usually present?

**Answer 2**
SGA usually presents as single or multiple deep dermal or subcutaneous skin-coloured nodules on the hands, anterior lower legs, scalp or buttocks. Lesions are typically painless and <4 cm in diameter. SGA is most commonly seen in children, but can also affect patients of other ages, as seen in this case.4

**Question 3**
How is this condition diagnosed?

**Answer 3**
The absence of overlying skin changes in SGA often makes clinical diagnosis challenging. Excisional skin biopsies are usually required to distinguish SGA from skin disorders with similar clinical features (eg rheumatoid nodules). Blood tests are generally only useful for excluding other diagnoses. Clinical examination is often sufficient for the diagnosis of SGA.

**Answer 4**
Other variants of granuloma annulare are presented in Table 1.

**Answer 5**
SGA may be associated with diabetes mellitus,5 and patients should be probed for suggestive signs and symptoms. Routine serum testing is not required unless otherwise indicated. SGA may also be associated with lymphoma and this possibility should be explored.
phototherapy. Recurrence is common and may require skin biopsy for confirmation.

Factors that predispose to granuloma annulare include topical calcineurin inhibitors and phototherapy. Treatment options include intralesional corticosteroids, cryotherapy and/or phototherapy. Treatment options for generalised granuloma annulare include topical calcineurin inhibitors and phototherapy. Recurrence is common after surgical excision. Persistent or troublesome cases of SGA could be referred to a dermatologist for consideration of treatment.

Key points

- SGA is most commonly seen on the hands of children.
- Granuloma annulare has a number of subtypes of which subcutaneous variant is one of the rarer forms.
- Diagnosis is often challenging clinically and may require skin biopsy for confirmation.
- Treatment is usually not required as SGA is self-limiting and resolves in months to years.

## References