Dermatoses in Everyday Practice

This article describes three common dermatoses (granuloma annulare, lichen planus and discoid lupus erythematosus), followed by three less common conditions (pigmented purpuric dermatosis, porokeratosis and Grover's disease).

GRANULOMA ANNULARE

Clinical Features

- Dermatosis of unknown aetiology that presents in 70% of cases before age 30
- Often more common in females and diabetic patients
- Classical lesions consist of small papules arranged in an enlarging 1-5 cm ring on the dorsum of the feet, hands, and on the extensor surfaces of the limbs *(Fig. 1)*

Histopathology

- Necrobiotic and/or interstitial granulomas *(Fig. 2)*
- Increased interstitial mucin

Treatment Options

- 75% will resolve without scarring within two years
- There is no therapy of choice
- Most widely used medicines are topical and systemic corticosteroids, which are not always effective, and relapses may occur when discontinued

LICHEN PLANUS

Clinical Features

- Relatively common eruption of unknown aetiology
- Most common in patients 30 to 60 years of age
- Lesions are flat-topped, violaceous, polygonal papules with white lines (Wickham's striae) that cross the surface *(Fig. 3)*
- Predilection for flexor surfaces wrists, trunk, thighs and genitalia
- Oral lesions in up to 60% of cases

Histopathology

- Lichenoid reaction with apoptotic (Civatte) bodies in epidermis
- Hyperkeratosis and wedge-shaped hypergranulosis
- Band-like upper dermal inflammatory infiltrate *(Fig. 4)*

Treatment Options

- Usually resolves over a variable time course from weeks to years
- Potent topical corticosteroids are treatment of choice
- Short course of systemic corticsteroids for widespread disease and mucosal lesions

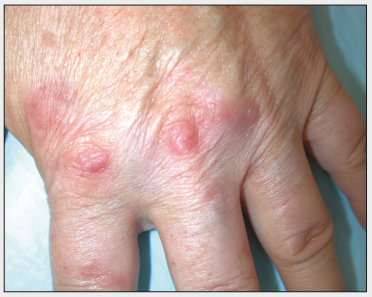

Fig. 1 Granuloma annulare
Annular plaque.

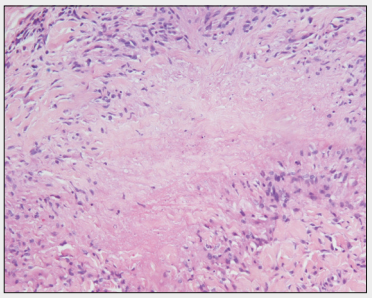

Fig. 2 Granuloma annulare
Necrobiosis surrounded by epithelioid and giant cells.

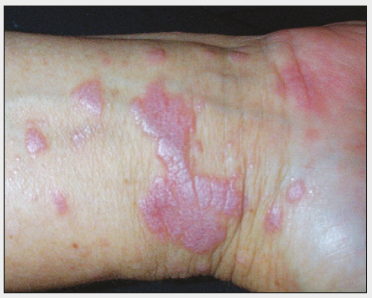

Fig. 3 Lichen planus
Flat-topped, polygonal papule with white striae.

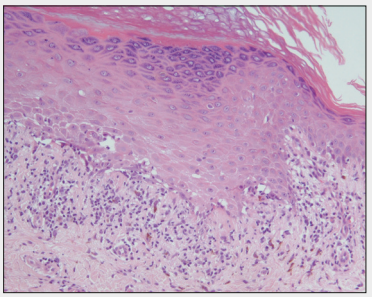

Fig. 4 Lichen planus
Lichenoid reaction, wedge-shaped hypergranulosis and hyperkeratosis.

DISCOID LUPUS ERYTHEMATOSUS

Clinical Features

- Inflammatory disease of unknown aetiology
- 2-3 times more common in females with a peak onset in the fourth decade
- Lesions are well-demarcated, erythematous, scaly patches with follicular plugging *(Fig. 5)*
- Approximately half are localised to the head and neck, often with a butterfly distribution on the face, and the rest are more widespread
- Photo-exacerbation occurs in most cases

Histopathology

- Follicular plugging, and lichenoid reaction which extends into follicular epithelium *(Fig. 6)*
- Superficial and deep dermal inflammation
- Direct immunofluorescence often shows positive lupus band test but not necessary for diagnosis

Treatment Options

- Only 5-10% will develop systemic lupus erythematosus
- First line treatments are sunscreens and topical corticosteroids of low to medium potency
- Other treatments for subtypes such as hypertrophic or tumid LE

PIGMENTED PURPURIC DERMATOSIS (PPD) (CAPILLARITIS)

PPD is a generic name for a group of chronic diseases that have lesions comprising a background of yellow-brown pigmentation with superimposed petechiae and share certain histological features. The aetiology is unknown, except for occasional cases that are caused by medicines or food additives, and rare cases that overlap with mycosis fungoides.

Clinical Features

- Many overlapping variants, e.g., Schamberg's disease (most common; irregular patches on legs), Majocchi's disease (annular plaques), lichen aureus (often solitary, rust coloured, on leg), itching purpura (similar to Schamberg's but itchy)
- Predilection for lower extremities of young adults, but also children and older adults, and other sites
- Most are chronic but 2/3 improve or clear eventually; itching purpura is of shorter duration

Histopathology

- Lymphohistiocytic infiltrate in upper dermis, often filling papillary dermis
- Lymphocytic vasculitis with endothelial swelling and extravasation of red blood cells, and haemosiderin deposition

Treatment Options

- Resistant to therapy
- Explanation without intervention, or short term topical steroids may be helpful, especially for itch

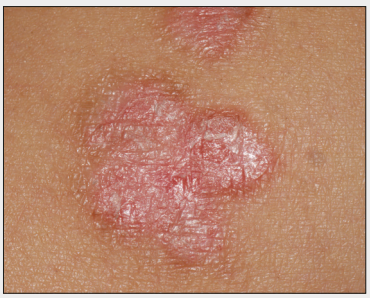

Fig. 5 Discoid lupus erythematosus
Erythematous, scaly patches.

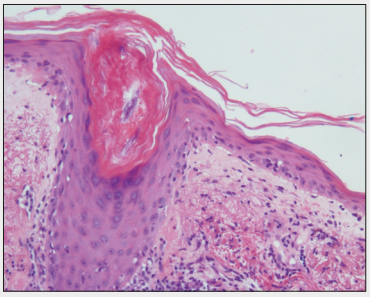

Fig. 6 Discoid lupus erythematosus
Lichenoid reaction with follicular plugging.

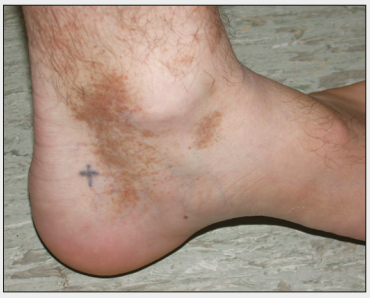

Fig. 7 PPD (lichen aureus)
Brown discolouration with petechiae.

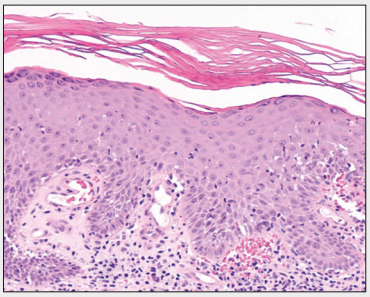

Fig. 8 PPD (H&E)
Lymphohistiocytic infiltrate in papillary dermis, endothelial swelling and extravasation of red blood cells.

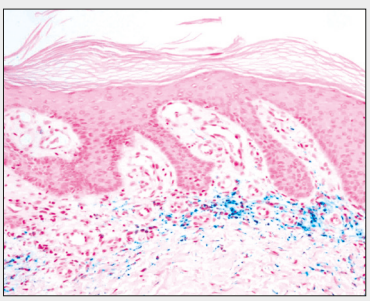

Fig. 9 PPD (Perls stain)
Highlights haemosiderin deposition in upper dermis.

POROKERATOSIS

This condition is characterised by annular lesions with an atrophic centre and a grooved elevated border from which a keratotic core (cornoid lamella) projects. It is probably due to expanding mutant clones of keratinocytes.

Clinical Features

- Various forms, some familial, others sporadic, some associated with immunosuppression
- Most common form - disseminated superficial actinic porokeratosis (DSAP) - many lesions up to 10 mm on sun-exposed sites in middle-aged individuals; resemble solar keratoses
- Prototypic form - porokeratosis of Mibelli - single or scanty larger lesions beginning in childhood
- Other forms - linear, giant, punctate (palmoplantar)
- Premalignant potential - SCC may develop in all forms except punctate

Histopathology

- Biopsy should be taken from the raised border to be diagnostic
- Sine qua non is the cornoid lamella (thin column of parakeratotic cells) with underlying hypogranulosis, vacuolation and dyskeratosis of keratinocytes, and often a lichenoid reaction

Treatment Options

- Treatment may be unnecessary
- Cryotherapy, 5-fluorouracil, laser, shave excision, curettage, oral acetretin used with varying degrees of success

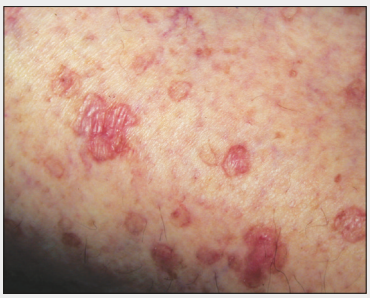

Fig. 10 Porokeratosis (DSAP)
Annular keratotic lesions with raised margins.

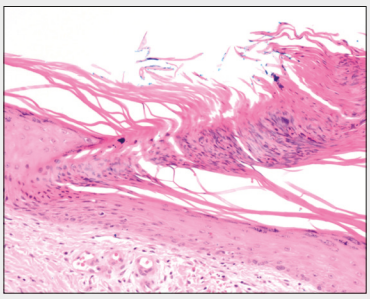

Fig. 11 Porokeratosis
Cornoid lamella (parakeratotic column) with underlying hypogranulosis and vacuolated keratinocytes.

GROVER'S DISEASE (TRANSIENT/PERSISTENT ACANTHOLYTIC DERMATOSIS)

This is a pruritic eruption that shows focal acantholytic dyskeratosis on histology. The aetiology is unknown but precipitating factors are sweating, sun exposure, ionising radiation and some drugs.

Clinical Features

- Acute eruption of pruritic greyish-pink papules or papulovesicles
- Occurs most commonly on trunk of middle-aged and elderly Caucasian men
- Transient version lasts weeks to months, more persistent form has chronic relapsing course over years
- May occur on background of other skin diseases

Histopathology

- Acantholytic dyskeratosis that is characterised by suprabasilar clefting, acantholysis and dyskeratotic cells (which may include corps ronds and grains)
- Superficial perivascular lymphohistiocytic infiltrate with occasional eosinophils
- Direct immunofluorescence is negative

Treatment Options

- Treatment difficult
- Avoid exacerbating factors
- Milder cases - antihistamines, topical steroids, calcipotriol
- More severe cases - oral steroids (but relapse when cease), etretinate, isotretinoin, PUVA

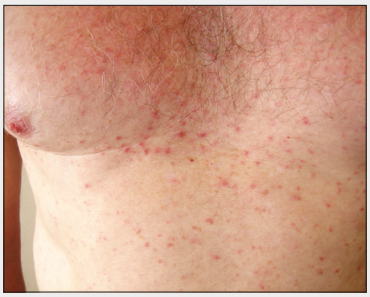

Fig. 12 Grover's disease
Multiple erythematous papules on chest wall.

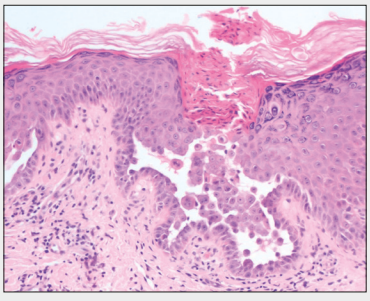

Fig. 13 Grover's disease
Suprabasilar cleft, acantholysis, dyskeratotic cells and lymphohistiocytic infiltrate in superficial dermis.

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No changes have been made to these photographs.

References

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