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PRACTICE

PRACTICE POINTER

Pityriasis rosea

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Pityriasis rosea is an acute exanthem that may cause patients great anxiety but is self limiting and resolves within one to three months.[1] It is a distinctive erythematous oval scaly eruption of the trunk and limbs, with minimal constitutional symptoms.

What causes pityriasis rosea?

The cause of pityriasis rosea is uncertain but epidemiological (seasonal variation and clustering in communities) and clinical features suggest an infective agent. Light and electron microscopy findings suggest infection with human herpesviruses 6 and 7 (HHV-6/7).[2] These viral antigens have been detected in skin lesions by immunohistochemistry and their DNA has been isolated from non-lesional skin, peripheral blood mononuclear cells, serum, and saliva samples.[3] HHV-6 and HHV-7 may also interact with each other, explaining recurrences and atypical presentations.

Drugs and pityriasis rosea

A pityriasis rosea-like eruption has been attributed to several drugs (box 1), mostly in single case reports, as identified in our scan of the literature. In the drug induced form there is no herald patch, individual lesions tend to be violet-red in colour, pruritus is more severe, and eosinophilia may be present. It has been speculated that drugs can trigger HHV-6 or HHV-7. However a small series of 12 cases found HHV-6 DNA in the plasma of one of 10 patients only, and all patients recovered within two weeks of discontinuing the drug.[4]

If the rash lasts longer than two months consider whether medication may be responsible (box 1). If a drug is suspected but is medically indicated, refer the patient to a dermatologist and, if appropriate, a relevant specialist (such as a neurologist about antiepileptic treatment) to help with decisions about whether to stop the drug.

Who gets pityriasis rosea?

Pityriasis rosea mainly affects adolescents and young adults aged 10-35 years.[5] A meta-analysis showed an incidence of 0.68/100 dermatology patients in specialised settings and prevalence has been estimated at 1.3% people in the community.[6]

How does pityriasis rosea present?

Pityriasis rosea begins in 40-76% of patients with a single herald patch—an asymptomatic thin oval scaly plaque often on the trunk (fig 1⇓).[7] Multiple herald patches may also occur.[8] The patch is usually well demarcated, 2-4 cm in diameter, erythematous, salmon coloured, or hyperpigmented. A fine collarette of scale is attached to the periphery of the plaque with its free edge extending internally. Within days to three weeks the second phase begins—the appearance of numerous smaller lesions, which are similar in configuration but occur along the lines of cleavage of the trunk (Christmas tree pattern; figs 2⇓ and 3⇓). The rash typically lasts five weeks; it resolves within eight weeks in 80% of patients but can last for five months.[8] After recovery, the affected skin may be hyperpigmented or hypopigmented but will not scar.

Not all patients present with typical morphology and distribution; 20% present with atypical disease,[9] in which morphology, size, distribution, number, site, severity, and disease course are unusual. The more common atypical variants include unilateral, inverse, lichenoid, vesicular, papular, purpuric, erythema multiforme-like, and urticarial types (fig 4⇓).[9]

Constitutional symptoms are usually absent but a recent case series of 52 patients found prodromal symptoms (fever, headache, arthralgia, cough, vomiting, or lymphadenopathy) in 59.6%.[10] Pruritus is variable in intensity and frequency and has been reported to affect 50% of patients.[5] Topical treatments of all forms have been reported to exacerbate the pruritus.[8]

Relapse rates of 1.8-3.7% have been reported, but these are probably underestimates.[8] Multiple recurrences are uncommon—three or more episodes have been reported in only eight patients, and the maximum number reported is five.[11]

How do we diagnose pityriasis rosea?

Pityriasis rosea can be difficult to diagnose, especially at the onset of symptoms. Other non-specific viral exanthems can be mistaken for pityriasis rosea and the differential diagnosis is wide (table⇓). No non- invasive tests can confirm the diagnosis.

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Box 1: Medications reported to be implicated in pityriasis rosea-like eruptions (based on our scan of the literature)

- Antibiotics/antifungals: metronidazole, pristinamycin, terbinafine
- Antidepressants/anxiolytics: nortriptyline, barbiturates, bupropion
- Antiepileptic: lamotrigine
- Antihypertensives: angiotensin converting enzyme inhibitors (captopril), clonidine, hydrochlorothiazide, atenolol
- Antipsychotics: asenapine, clozapine
- Biological agents: adalimumab, rituximab
- Metals: arsenic, bismuth, gold
- Vaccines: hepatitis B, H1N1 influenza, yellow fever, BCG, diphtheria, smallpox, pneumococcus, human papillomavirus
- Others: isotretinoin, non-steroidal anti-inflammatory drugs, omeprazole

A Cochrane review noted that the diagnosis is clinical and that various investigators have used different inclusion and exclusion criteria in their studies, making systematic reviews and meta-analyses difficult.[5] For this reason, diagnostic criteria have been proposed for typical and atypical pityriasis rosea (box 2).[12] Their reliability and applicability in all ethnic groups is as yet uncertain.

Skin biopsy is not advocated in typical pityriasis rosea; however, histological examination shows non-specific but similar changes in the herald patch and secondary lesions.[10]

Pityriasis rosea in children and pregnancy

Reports suggest that 6-10.5% of patients with pityriasis rosea are under 10 years of age. Children may present with papular lesions (33%), and in those with darker skin, residual hyperpigmentation (48%) may persist.[8] States of immunosuppression can favour reactivation of HHV-6 or HHV-7. Because the immune response is altered during pregnancy, there is a risk of viral reactivation. A series of 61 patients found an increased rate of miscarriage in women who develop pityriasis rosea in the first 15 weeks' gestation, so closer follow-up of these women is recommended.[13]

How can we treat it?

Explain to patients that pityriasis rosea is a self limiting condition that is not contagious and usually resolves within one to three months. Treatment is usually symptomatic, and there is currently no good evidence for one specific treatment. A 2007 Cochrane review retrieved four trials (three randomised controlled trials and one partially randomised controlled trial) and found no adequate evidence for or against the effectiveness of erythromycin, systemic corticosteroids, systemic antihistamine, and intravenous glycyrrhizin.[6] It recommended further randomised control trials be conducted. Various other treatment modalities have been tried without evidence of effectiveness including natural sunlight, ultraviolet phototherapy, topical corticosteroids, topical antihistamines, dapsone, and macrolides.[5 14 15]

Data from a small randomised controlled trial suggest that taking high doses of the antiviral agent aciclovir may speed resolution,[16] but these results are insufficient to recommend its use. If symptoms are severe, consider testing an area with topical therapy (class 2 or 3 topical corticosteroid or topical menthol); if this is tolerated and improves symptoms, it can be applied more extensively.

When should we refer?

Pityriasis rosea can generally be managed in primary care. If the rash persists for longer than three months, symptoms are severe, or the diagnosis is uncertain, referral to a dermatology clinic may be necessary. Although evidence is contradictory, many dermatologists will consider a monitored trial of ultraviolet B phototherapy for more aggressive eruptions.

Patient distress or request for referral to a dermatologist should also be taken into account.

Methods

We undertook a literature review using the search term "pityriasis rosea". We searched Medline, PubMed, and the Cochrane Library. Because the diagnosis is clinical and investigators have adopted different inclusion and exclusion criteria in their studies, meta-analysis of previous reports and studies is difficult and overall quality of evidence is weak. Where possible, randomised double blind placebo controlled studies were reviewed; however, owing to their paucity, case studies and case reports were also included but were referred to as such in the text.

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Patient consent for fig 2 obtained.

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Box 2: Proposed diagnostic criteria for pityriasis rosea[12]*

A patient is diagnosed as having pityriasis rosea if:

- On at least one occasion or clinical encounter, he or she has all the essential clinical features and at least one of the optional clinical features, and
- On all occasions or clinical encounters related to the eruption, he or she has none of the exclusional clinical features

The essential clinical features are:

- Discrete circular or oval lesions
- Scaling on most lesions, and
- Peripheral collarette scaling with central clearance on at least two lesions

The optional clinical features are:

- Truncal and proximal limb distribution, with less than 10% of lesions distal to mid upper arm and mid thigh
- Orientation of most lesions along skin cleavage lines, and
- A herald patch (not necessarily the largest) appearing at least two days before eruption of other lesions, noted from patient history or from clinical observation

The exclusional clinical features are:

- Multiple small vesicles at the centre of two or more lesions
- Two or more lesions on palmar or plantar skin surfaces, and
- Clinical or serological evidence of secondary syphilis

*This outline was proposed by Chuh and Zawar; reproduced with permission from Chuh.[12]

What you need to know

- Pityriasis rosea usually starts with a herald patch followed by smaller lesions along the lines of cleavage within three weeks (Christmas tree pattern)
- Reassure the patient that the rash is self limiting, typically resolves within one to three months, will not scar, is not contagious, and usually needs symptomatic treatment only
- Skin biopsy is unnecessary in typical pityriasis rosea
- Refer to a dermatologist if pruritus is severe, rash persists beyond three months, or the diagnosis is uncertain

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Table

Table 1| What else could it be?

Condition	Clinical features	Diagnosis
Guttate psoriasis	Lesions persist and have silvery scale rather than collarette; lesions are tear drop shaped on trunk and proximal extremities, no herald patch	History: family or personal history of psoriasis, recent upper respiratory tract infection (80% have evidence of streptococcal infection); biopsy: classic features of psoriasis
Viral exanthema, non-specific	Usually prodrome (headache, fever, malaise, myalgia); history of contact; red, scaley rash, which may be mainly truncal but not in Christmas tree pattern; no collarette and no herald patch; may be acral (hands and feet) and vesicles may be present	Clinical diagnosis aided by viral swabs for culture, immunofluorescence, or polymerase chain reaction; blood for serology
Tinea corporis	Initial herald patch often mistaken for ringworm; however, ringworm lesions are more erythematous and oedematous with marginal vesiculation	Scrape for microscopy
Pityriasis versicolor	Fine scale not collarette; upper trunk, neck, face; hyperpigmented or hypopigmented	Yeast on microscopy or biopsy
Nummular eczema	Extremities; pruritus intense	Rapid improvement with topical steroid; biopsy if uncertain
Subacute cutaneous lupus erythematosus	Photodistribution (chest, face, and arms) rather than Christmas tree pattern	Anti-Ro/anti-La antibodies; biopsy
Secondary syphilis	Genital, palmoplantar, and oral lesions; no herald patch; lymphadenopathy	Syphilis serology

Figures

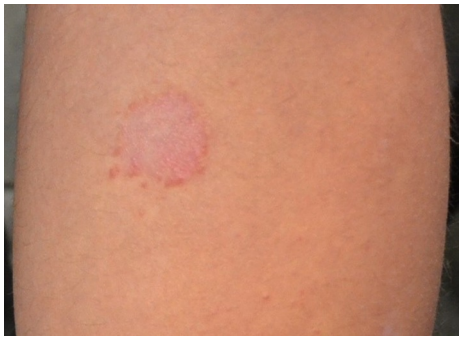

Fig 1 Herald patch: well demarcated, fine scaly, salmon coloured plaque with central resolution noted on the posterior thigh and easily mistaken for ringworm or nummular eczema

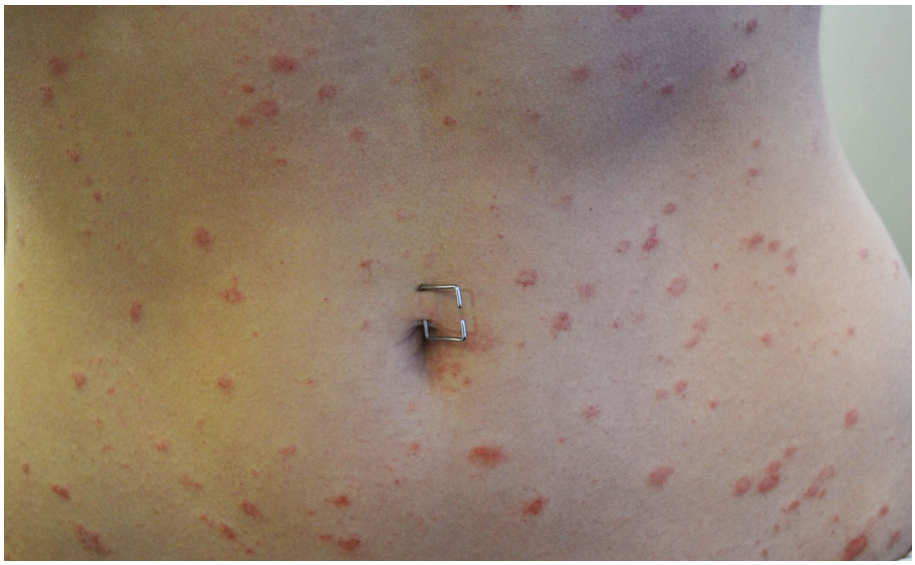

Fig 2 Generalised scaly papules and plaques on the abdomen noted in lines of cleavage

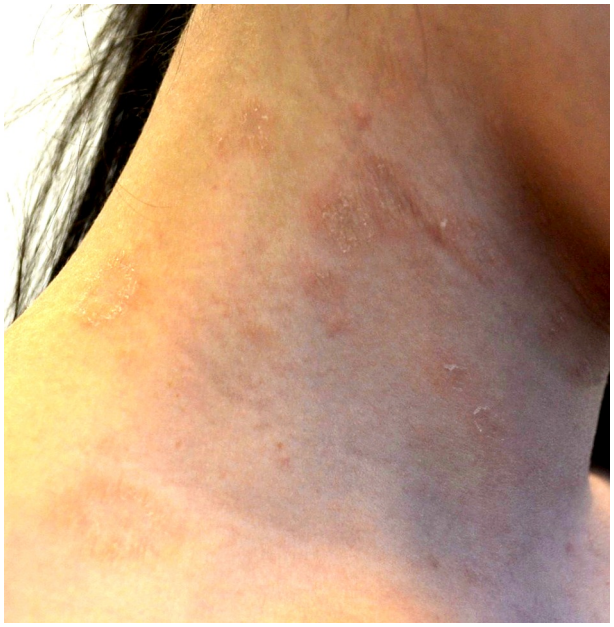

Fig 3 Plaques arranged in lines of cleavage on the lateral neck; a collarette of scale is visible on many plaques. Note the peripheral attachment of scale and the free edge internally

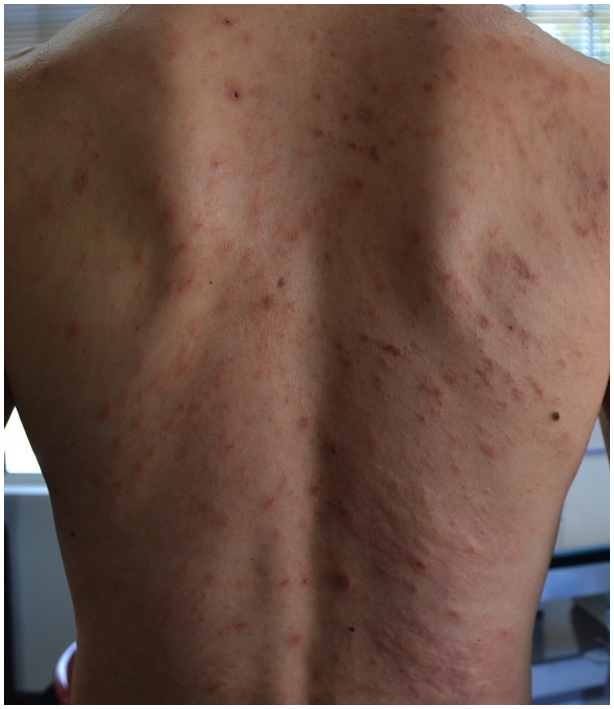

Fig 4 Urticarial-type pityriasis rosea occurring in lines of cleavage on the back