Psoriasis

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Background

Psoriasis is one of the more common rashes presenting to general practice.

Objective

This article outlines the assessment and management of psoriasis in the general practice setting.

Discussion

Careful clinical assessment will usually lead to a diagnosis of psoriasis. Management starts with education, lifestyle measures and general skin care measures. Although topical steroids are the mainstay of treatment, other topical options are outlined and treatment options in difficult locations are considered. The potential indications for referral and systemic therapies are also considered.

Keywords: psoriasis; skin diseases

CPD

Rashes are a common presentation in patients presenting to general practice. The majority of rashes will be fungal infections, eczema, dermatitis, acne and psoriasis. An Australian study[1] in 1999 showed a prevalence of 6.6% for psoriasis, but 80% of these patients were unaware of the psoriasis and thought it not clinically relevant. This means that about 1.5% of patients will have clinically important psoriasis. Psoriasis is an inflammatory immune based disorder with a genetic predisposition.

History

When a patient presents with a rash it is important to take a full history and avoid the temptation of a spot diagnosis. This is for two reasons. First, if you do not know what the rash is likely to be after asking the relevant questions then you are probably in trouble![2] Second, the history is part of the treatment. It is also therapeutic for the patient and has a significant impact on the effectiveness of therapy.[3] Review the history of the rash, the symptoms and what has already been tried. It can also be useful to ask what the patient thinks has caused the rash and how much it is affecting them. Does the patient have any problems with arthritis or tendinitis? Review the patient's drug and family history, their past history, and their smoking and alcohol intake.

Examination

Hopefully the examination is going to be used to confirm your diagnosis. Psoriasis will typically present as well defined, raised red patches (plaques) with adherent thick silvery scale (*Figure 1, 2*). Typically the patch is symmetrical, and you should check for this. It may be less obvious on the other side. Check the areas that are often missed by both doctor and patient. This includes the scalp, ears (*Figure 3*), nails and natal cleft.

Psoriasis is vascular and removal of the thick scale may reveal pinpoint bleeding (Auspitz sign). Nail changes may include pitting, lifting of the nail (onycholysis) and subungual hyperkeratosis (*Figure 4*). Usually nail psoriasis is a definite finding, but it is sometimes difficult to tell apart from a fungal infection. If so, take some nail clippings for culture.

Touching a patient and their patches of psoriasis can be very important to some patients. Some people with psoriasis have been avoided and ridiculed by society (even by some medical professionals) in the belief that their psoriasis is contagious.

Are there any signs of arthritis or periarticular disease? There are a

number of patterns that may be seen in psoriatic arthritis. These include:

- distal interphalangeal arthritis
- metacarpophalygeal joint involvement (rheumatoid-like)
- spondyloarthritis
- oligoarthritis
- dactylitis (sausage-fingers or toes)
- enthesopathy (eg. plantar fasciitis).

Diagnosis

History and examination are usually all that is needed for a diagnosis. Most experienced practitioners make a diagnosis by pattern recognition.[4] Our depth of knowledge and our history taking and observation skills will determine how often we make a confident diagnosis early in the consultation. A guided history and examination will confirm the diagnosis. Beware the pattern that does not quite fit. This is when you need to consider alternative diagnoses.

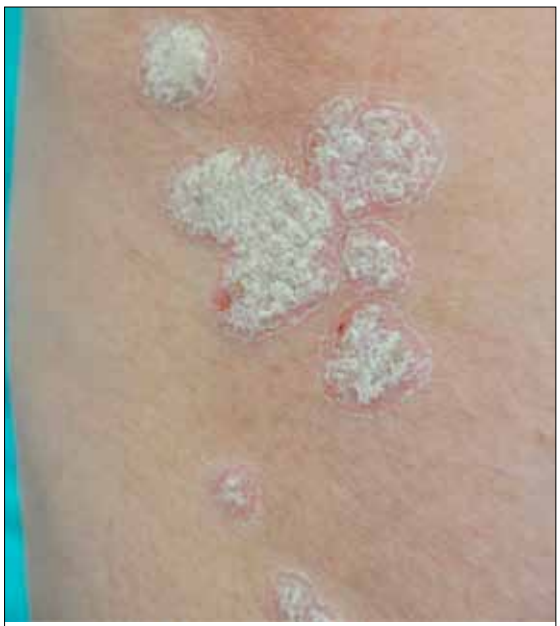


Figure 1. Elbow psoriasis

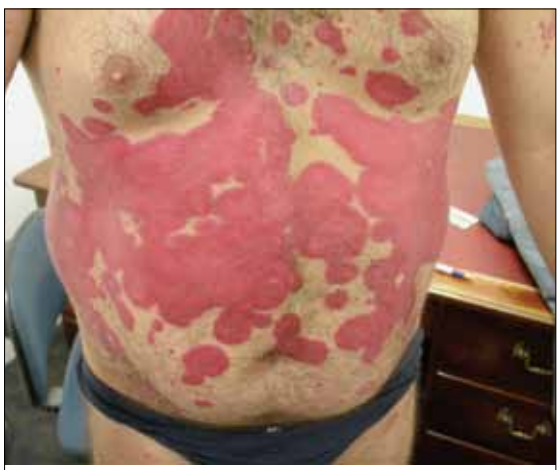


Figure 2. Extensive plaque psoriasis

Differential diagnosis

Eczema

Eczema can share a number of similar features to psoriasis and is also usually symmetrical. However, it is usually itchier than psoriasis and tends not to have the same thick scale as psoriasis. It can be very difficult to differentiate between eczema and psoriasis when the rash is confined to the hands.

Fungal infections

Fungal infections can look very similar (*Figure 5*), especially when compared to partially resolved psoriasis, which typically shows central clearing. If in doubt, take scrapings from the active edge for fungal culture.

Skin tumours

Skin tumours can look psoriasiform. Be suspicious of the isolated plaque of psoriasis that slowly enlarges despite treatment. It may be an in situ

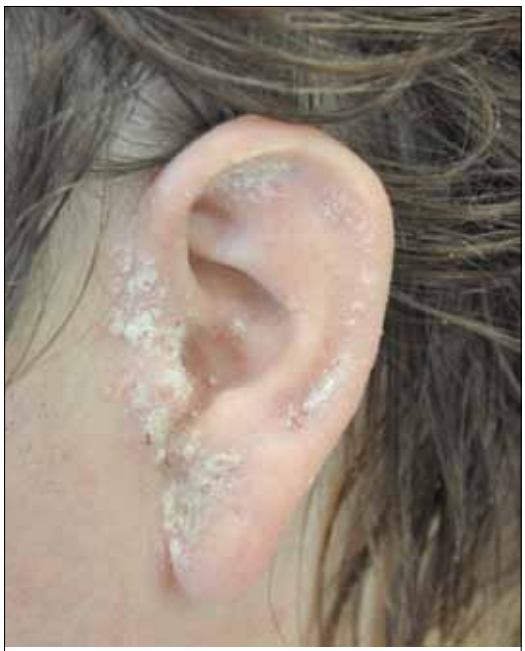


Figure 3. Ear psoriasis

Figure 4. Gross nail psoriasis and palmar psoriasis

squamous cell carcinoma. Psoriasis is almost always symmetrical. If in doubt do a skin biopsy. T cell tumours of the skin (eg. mycosis fungoides) are rare but can present as a symmetrical psoriasiform rash. However, the pattern is usually not completely typical of psoriasis. If there is doubt, then a biopsy or referral should be organised.

Seborrhoeic dermatitis

Seborrhoeic dermatitis may have a similar appearance to psoriasis, especially in the scalp and around the ears. Sometimes the term 'sebopsoriasis' is used and some patients do appear to progress over time from dermatitis to psoriasis.

Uncommon forms of psoriasis

The most common form of psoriasis is chronic plaque psoriasis (about 80% of cases). However, occasionally you may come across other forms.

- Guttate psoriasis. Typically this presents in the teens or early 20s a week or so after a streptococcal sore throat. There may be a florid outbreak of small plaques, especially on the trunk and proximal limbs
- Psoriasis of the palms and soles (*Figure 6*). This often looks like either dermatitis or a fungal infection. A careful history and keen observation will usually provide a diagnosis. If the back of the hands and web spaces are not involved it is unlikely to be dermatitis. If it is psoriasis, the skin involved will have a well defined edge and normal adjacent skin. It would be sensible to take scrapings to rule out a fungal infection
- Pustular psoriasis (*Figure 7*). This occurs on the palms and soles, or occasionally, on the body. Typically there is a mix of both pustules and small brown dots (dried pustules). It is often treated as a bacterial or fungal infection. If swabs and scrapings are taken, no pathogens will be found. The pustules are sterile inflammatory lesions. There is a very high correlation with smoking
- Flexural psoriasis. This may be extensive and involve the axillae, groin, natal cleft and under the breasts and usually lacks scale due to moisture. However, the border is still well defined (in contrast to intertrigo and eczema) and there are no pustules, as would be expected in thrush
- Erythrodermic psoriasis. This may appear quickly and may occur when oral steroids have been used and then stopped. Typically the patient is very unwell, having major problems with temperature and fluid regulation, and the entire skin surface is red and scaly (*Figure 8*). The skin is hot, but the patient may be hypothermic and prone to dehydration. Hospital admission is often required
- Infantile psoriasis. This may be difficult to distinguish from seborrhoeic dermatitis. It may involve the nappy area as well as the axillae, neck and umbilicus. Typically the child is not particularly distressed by the rash, with little or no itch (in contrast to extensive atopic eczema).

Sometimes there may be a significant degree of uncertainty with the diagnosis. It is not uncommon to see a rash early in its evolution. It may be appropriate to provide treatment and review the situation in a few weeks, with the diagnosis then becoming apparent.

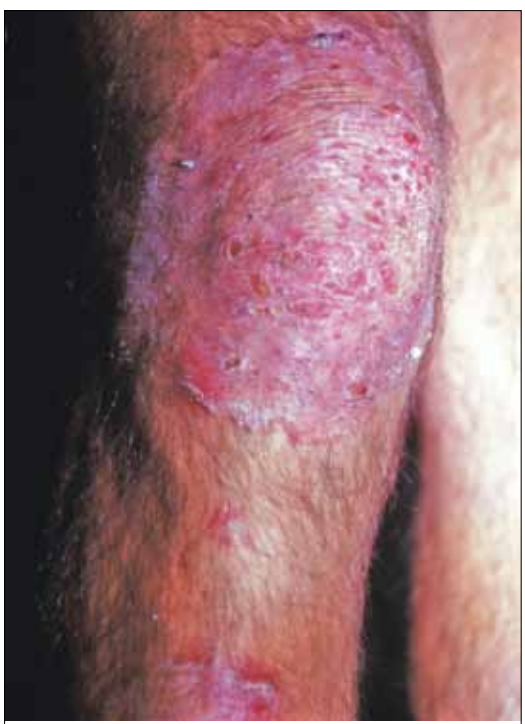


Figure 5. Fungal infection of the knee

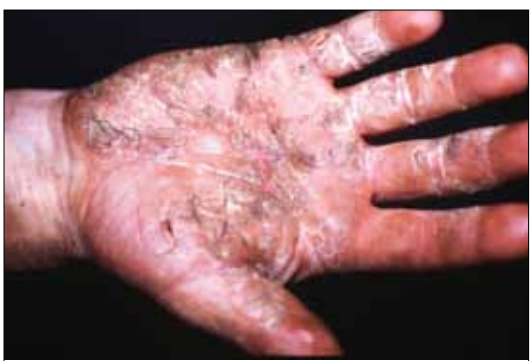


Figure 6. Psoriasis of the palm and fingers

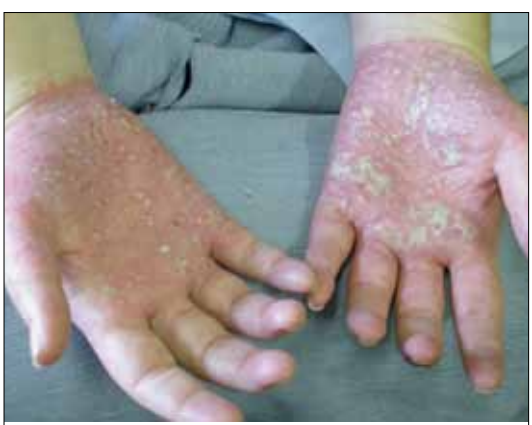


Figure 7. Pustular psoriasis

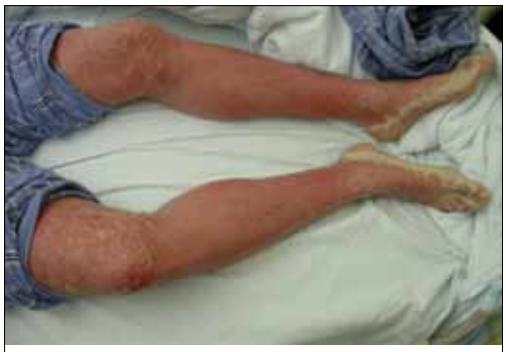


Figure 8. Erythrodermic psoriasis

Treatment

While topical steroids are the mainstay of treatment for psoriasis, they are only part of the story. Giving a patient a diagnosis of psoriasis provides a wonderful opportunity to address many preventive health issues. It may be appropriate to look further into some issues at a later consultation, but highlighting some of the major issues immediately may effect changes in patient behaviour.

Explicitly state that the diagnosis is psoriasis and provide a brief explanation of psoriasis. For example: 'psoriasis is an inflammatory condition related to the immune system and some people are born with a tendency to develop it. Various factors such as stress and illness may act as a trigger for the rash. It is not infectious or contagious. It is made worse by smoking, a poor diet and lack of exercise. There is no cure but there are effective treatments'.

A brief nonjudgmental discussion on smoking can have a powerful effect in the acute setting.[5] It may be more appropriate to delve further into diet, exercise and stress management at a subsequent visit.

Explain the importance of general skin care measures. Psoriasis is made worse by scratching and rubbing and picking, by excessive hot water and by skin dryness. There can be major improvements in psoriasis simply from stopping picking (we all pick scaly things even if we do not realise it!), applying a moisturiser regularly and having quick showers that are not too hot.

Be mindful that psoriasis may be triggered or worsened by some drugs, especially lithium, beta blockers and nonsteroidal anti-inflammatory drugs.

Systemic treatments

If there is poor response to topical therapy and the patient is keen to improve the psoriasis, then systemic treatment will need to be considered. Some patients may have psoriasis involving only their palms but it may have a devastating effect on their ability to work and socialise. There must be acknowledgment of the risks involved and the appropriate monitoring to undertake. Options include:

- ultraviolet light therapy
- methotrexate
- cyclosporin
- neotigason
- biologics.

Patients with both psoriasis and psoriatic arthritis may find a major improvement in their quality of life with systemic treatment. Combinations of therapies may be appropriate, for example ultraviolet light therapy and topical therapies. It is becoming more common to see patients with severe disease to be on a combination of low dose methotrexate and a biologic. Most systemic treatments require referral to a dermatologist, but ongoing monitoring and addressing related health issues will also involve the general practitioner. It is important to appreciate that psoriasis is a systemic autoimmune disease and that it is associated with an increased risk of hypertension, obesity, elevated lipids, heart disease, diabetes, inflammatory bowel disease, lymphoma and depression.[6] It is expected that control of the underlying inflammatory process in patients with extensive psoriasis will make a significant difference to their morbidity and, possibly, mortality.

Specific treatments

Chronic plaques usually respond better to ointments rather than creams. They are more moisturising and tend not to sting if there are cracks. However, they are messier. A good routine to start with would be:

- keep showers quick (5 minutes) and not too hot; use a soap substitute
- weekly (or more regular) bath with bath oil or oatmeal
- sorbolene with 10% glycerine in the morning
- betamethasone 0.05% or mometasone 0.1% ointment at night.[7]

A useful short term and intermittent treatment is an ointment that combines both calcipotriol and betamethasone in a once daily application. Extensive and persistent use of topical steroids should be avoided because of the risk of tachyphylaxis (a severe flare when the steroid is stopped plus poor response when restarted) and skin atrophy.

Continue this regular routine for a month. If there has been a good response, the moisturiser should be continued and the steroid used again when there is a flare. If the response is only partial, then another agent is added. Options include:

- calcipotriol 0.05% cream twice per day. Up to 100 g of calcipotriol cream per week may be used with little risk of affecting serum calcium levels
- dithranol 1% + salicylic acid 1% in emulsifying ointment, applied carefully to the plaques and washed off after half an hour. Dithranol stains the skin (temporarily) and clothing (permanently), so care needs to be taken. It is also a skin irritant and the length of contact time may be varied depending on individual reactions. However, it can be very effective and a good response from 2 weeks or so of treatment can have a very lasting effect (*Figure 9, 10*). It is best avoided on the face and flexures
- tar cream. This works well for some patients and regular use is more likely if it is not too smelly or messy. One option is salicylic acid 3% + liquor picis carbonatum (lpc) 3% in aqueous cream twice per day
- psoriasis of the face and flexures requires careful treatment to avoid irritation and skin atrophy. Use 1% hydrocortisone (cream in moist areas and ointment on dry areas) or occasional methylprednisolone aceponide. Calcipotriol may be used but it is more likely to irritate in

these areas. It may be appropriate to alternate between calcipotriol and hydrocortisone to limit any irritation. Infantile psoriasis normally responds well to bland emollients (eg. sorbolene or emulsifying ointment) and occasional 1% hydrocortisone

- scalp psoriasis is more of a challenge because of the difficulty of applying creams to the scalp. One option is to apply tar cream at night and wash out in the morning (once or twice a week). Apply a steroid lotion on the other days (eg. mometasone 0.1% lotion)
- nail psoriasis can be very resistant to treatment. Start with a steroid lotion to the cuticle and under the end of the nail at night. Apply a moisturiser several times a day to the nail. Response is typically slow (months).

Combining treatments tends to be more effective than monotherapy.

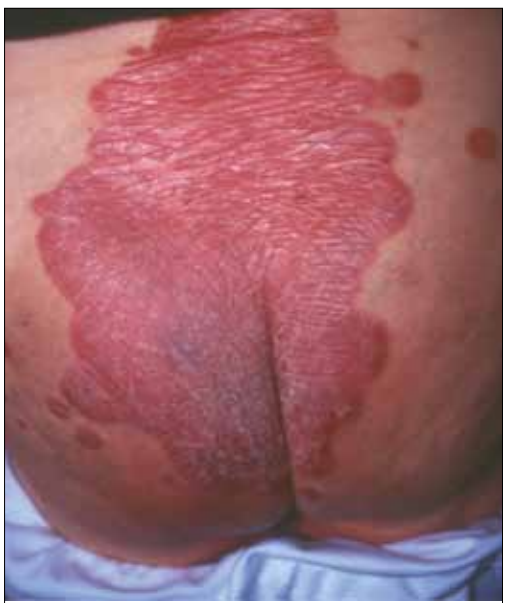


Figure 9. Buttock psoriasis before dithranol treatment

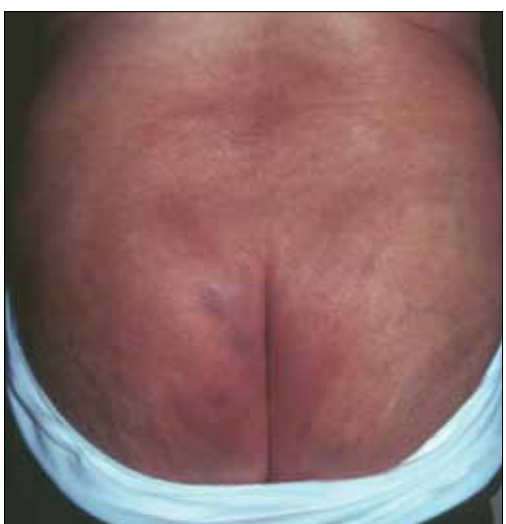


Figure 10. Buttock psoriasis after dithranol treatment

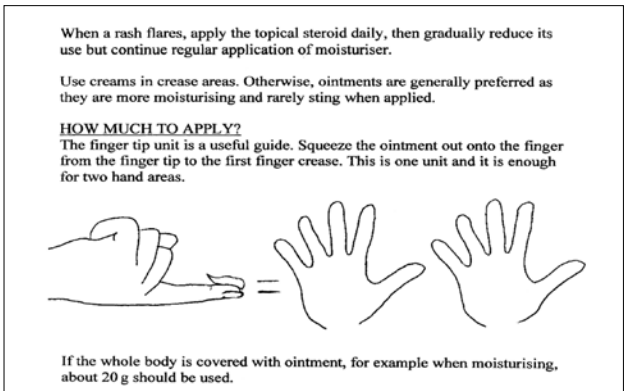


Figure 11. Applying topical steroids

If there is a poor response it is important to check on compliance, and possible reasons that hinder compliance. Also, check that enough cream or ointment is being used. A good guide is the fingertip unit.[8] A squirt of cream from the fingertip to the distal interphalangeal (DIP) joint is enough to cover two hand areas. Make sure you prescribe enough cream and ointment for 1 month of treatment (*Figure 11*).

When to refer

Most patients with psoriasis will have limited disease that is controlled satisfactorily with topical treatment. Circumstances that may prompt a referral would include:

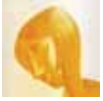
- extensive psoriasis that is not controlled
- where there is diagnostic uncertainty (this most commonly occurs with rashes of the hands and feet)
- where there is a significant associated arthropathy, or
- where there is a rapidly progressive psoriasis or erythrodermic psoriasis.

Systemic treatment with acitretin, cyclosporine or a biologic will require referral. One systemic treatment available to the GP is methotrexate. This is given weekly, but requires monitoring of full blood count, renal and liver function. This can be effective for both psoriasis and psoriatic arthritis. However, there are potential serious side effects and the doctor needs to be aware of these, and of the appropriate monitoring and follow up schedule.[9]

The *European S3-Guidelines on the systemic treatment of psoriasis vulgaris*[9] provide an excellent summary of systemic treatments for psoriasis, and associated monitoring.

Summary of important points

- Psoriasis is an inflammatory immune based disorder with a genetic predisposition.
- Psoriasis has associations with heart disease, diabetes, obesity, arthritis, inflammatory bowel disease, lymphoma and depression.
- A diagnosis of psoriasis provides a major opportunity to address several preventive health issues.
- Most patients with psoriasis will have a limited number of plaques and this can often be kept under control with intermittent use of a topical steroid.



- Patients with extensive or debilitating psoriasis may require long term use of systemic agents.

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