Seborrhoeic Dermatitis

**Synonyms:** seborrhoeic eczema

Seborrhoeic dermatitis (SD) is a common, benign scaling rash. It is named dermatitis because it involves inflammation of the skin and seborrhoeic because it affects areas rich in sebaceous glands. Therefore, it is most common on the face, scalp and chest. It can affect any age from puberty onwards. It occurs in babies in a form known as infantile seborrhoeic dermatitis.

**Epidemiology**[^1^,^2^]

Globally, seborrhoeic dermatitis occurs in 1-5% of the general population. This increases in the immunocompromised, with prevalence rates reported at 34-83%, and it has been suggested that it could be an early marker of HIV infection. In individuals with AIDS, the condition is often severe.

SD is more common in males than in females, which is thought to be due to the effect of androgen on production of sebum. Peak incidence is in infants, in adolescents and in young adults; however, it can occur at any age. It occurs throughout the world.

**Aetiology**[^1^,^3^]

The exact cause of seborrhoeic dermatitis is unclear but it is probably an inflammatory reaction to yeast called *Malassezia* spp. This yeast may be a normal skin commensal. Patients with seborrhoeic dermatitis may have a reduced resistance to the yeast.

Symptoms may be aggravated by illness, psychological stress, fatigue, change of season, poor immune function (eg, HIV) and certain medications. These include buspirone, chlorpromazine, cimetidine, griseofulvin, haloperidol, lithium, interferon alfa and methyldopa. It is more common in individuals with neurological conditions such as Parkinson's disease. Immobility (causing sebum to build up) may be a factor in this.

Pityriasis capitis, or 'dandruff', is a non-inflamed form of seborrhoeic dermatitis of the scalp.

**Presentation**[^1^,^4^]

**Face**

SD presents as inflamed, greasy areas with fine scaling.

The affected areas are:

- The nasolabial folds.
- Over the bridge of the nose.
- The eyelashes/eyebrows. This may present as blepharitis.
- The ear - particularly behind the ear in the skin folds. It may also cause itching of the ear canal.

**Scalp**

Usually there is an associated fine scaling in the scalp to produce the 'dandruff' (fine flaking seen on the scalp and in the hair).

There may be ill-defined dry pink patches with yellowish or white bran-like scale. It may affect the entire scalp. This may cause pruritus.
Other areas
The chest - there are usually papules with greasy scales; however, less commonly there are macules and papules similar to extensive pityriasis rosea.

The sternum and upper back (between the scapulae) - may have fine scaling plaques.

Flexures (axillae, groins and under breasts) - may have erythematous patches, papules or plaques presenting as intertrigo.

For more images of SD, see the websites of DermNet NZ and the Primary Care Dermatology Society (PCDS)\textsuperscript{4, 5}.
Differential diagnosis[1,2]

The distribution and appearance of SD is usually characteristic. Fine scaling (‘dandruff’) helps confirm the diagnosis. If there is any doubt, skin biopsy or fungal culture may be required.

Differential diagnoses (by area)

These include:

On the face

- **Rosacea**: this is not scaly, spares the nasolabial fold and consists of papules and pustules on an erythematous base situated on the cheeks, chin, tip of the nose and forehead.
- **Systemic lupus erythematosus**: this has a butterfly distribution of typical rash on the cheeks.

On the scalp

- **Psoriasis** (of the scalp, face or chest): this may look similar to, or may overlap with, SD. This overlap condition is called sebopsoriasis[6].
- **Infected eczema**.
- **Tinea capitis**.

On the torso

- **Atopic eczema**: this typically affects the antecubital and popliteal fossae.
- **Contact dermatitis**.
- **Pityriasis rosea**: there is presence of a herald patch; it is more widely distributed usually.
- **Pityriasis versicolor**.
- **Lichen simplex**.
- **Candidiasis**.

Management[1, 7]

The basis of treatment is regular antifungal medication with intermittent topical steroids. There is no evidence of superiority of one antifungal over another[8]. Calcineurin inhibitors are increasingly used in this condition, with evidence of comparable efficacy to azoles when used for the face and scalp[9]. Aims are to improve the appearance of the visible rash and to reduce itch and erythema.

Scalp

- First remove thick crusts or scales with olive oil or a keratolytic preparation such as salicylic acid or coal tar. Olive oil should be left on the affected areas for several hours before being washed off with normal or coal tar shampoo.
- Medicated shampoos: a shampoo containing ketoconazole 2% (such as Nizoral®) should be used, with selenium sulfide shampoo (such as Selsun®) as an alternative. If these are unacceptable, shampoos containing zinc pyrithione (eg, head & shoulders®), coal tar or salicylic acid may be used. The British National Formulary (BNF) contains a list of preparations with differing strengths of these active ingredients[10].
- Shampoos are used twice a week for at least a month, after which the frequency may be reduced.
- They may also be used in the beard area.
- Steroid scalp applications reduce itching. Intermittent use for a few consecutive days may be helpful. Avoid continuous use. Use a potent topical steroid for the scalp but not in the beard area.

Face, ears, chest and back

- Keep the skin clean but avoid soap.
- Ketoconazole or another antifungal cream may be used once daily for 2-4 weeks. This can be repeated as necessary. Reduce frequency once symptoms are controlled. Antifungal shampoos may be used as a body wash in addition.
- 1% hydrocortisone cream can be applied once or twice daily for a week or two. Again, intermittent courses may be required for this chronic condition (and continuous use or high doses should be avoided).
- Topical calcineurin inhibitors such as pimecrolimus cream or tacrolimus ointment may be helpful. Evidence suggests these have similar efficacy to steroid creams and antifungal agents[11, 12]. Use of calcineurin inhibitors may allow sparing of steroid use. Topical lithium salts have also been shown to be effective (and possibly more so than antifungal creams) but are not available in the UK[9].
- For eyelids, consider hygiene methods such as diluted baby shampoo applied with cotton buds.

Other treatments

More severe SD may merit[5]:

- Oral antifungal medication - azoles (eg, ketoconazole or itraconazole) or others - eg, terbinafine.
- Oral tetracyclines have been used (off-label) for their anti-inflammatory effect.
- Oral isotretinoin (off-label use).
- Ultraviolet light treatment.

(Always consider HIV infection in cases of severe SD.)
Complications

- Secondary bacterial infection can occur.
- Severe SD or generalised seborrhoeic erythroderma is rare. They may occur with immunosuppression (including HIV) or cardiac failure.

Prognosis

The condition usually responds well to treatment. It often relapses, so maintenance or intermittent treatment may be required.

Further reading & references

4. Seborrhoeic dermatitis; DermtNet NZ
5. Seborrhoeic eczema; Primary Care Dermatology Society (PCDS)
6. Psoriasis; DermtNet NZ
10. British National Formulary (BNF); NICE Evidence Services (UK access only)

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