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# **Key Points**

 Infantile seborrhoeic dermatitis is sometimes confused with atopic eczema but unlike atopic eczema, there is usually little or no itch— Seborrhoeic dermatitis is usually associated with cradle cap in children and dandruff in adults.

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- It is thought that seborrhoeic dermatitis sufferers may develop an excessive inflammatory response to the commensal yeast, *Malassezia*, which is found in excessive numbers in patients with seborrheic dermatitis.
- Anti-yeast shampoos, creams and tablets often help in seborrhoeic dermatitis.

#### What to Tell the Patient

- Seborrhoeic dermatitis may be aggravated by stress, fatigue, depression, diabetes, some medications, excess alcohol or excess sugar in the diet.
- Anti-dandruff shampoos usually helps on the scalp and face.
- It usually responds to a weak topical steroid (1% hydrocortisone) on the face and flexures.
  Frequent, recurrent and resistant cases may need topical calcineurin inhibitors such as tacrolimus ("Protopic<sup>®</sup>").

# 16.1 Introduction

Seborrhoeic dermatitis (SD) (also known as "seborrhoeic eczema or seborrheic dermatitis)" is a very common skin condition in infants and adults. While it is not dangerous in any way, it can be uncomfortable and unsightly, leading to distress and embarrassment for the sufferer [1]. The name seborrhoeic derives from the fact that the rash is distributed in the greasy (sebaceous) areas like the face, scalp and centre of chest and back where there is a high concentration of sebaceous glands.

## 16.2 Clinical Features and Diagnosis

There are two distinctive forms of seborrhoeic dermatitis: infantile and adult seborrhoeic dermatitis.

## 16.2.1 Infantile Seborrhoeic Dermatitis

This usually presents as a non-itchy, red, scaly rash in infants less than 12 months old. It is sometimes confused with atopic eczema but unlike it, there is usually little or no itch. The rash usually presents as cradle cap in an infant. It can then spread onto the face and trunk. The rash is mainly distributed in flexures, especially the neck and axillae. It can also affect the trunk in a similar

Seborrhoeic Dermatitis (SD)





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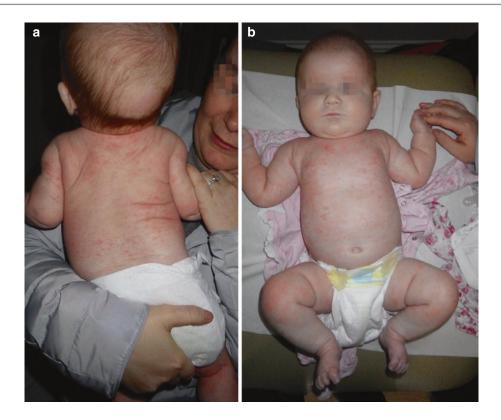


Fig. 16.1 (a, b) Infantile seborrhoeic dermatitis

distribution to atopic eczema (Fig. 16.1a, b). There can sometimes be a rash over the sternum and there may be associated napkin dermatitis.

Treatment of infantile seborrhoeic dermatitis is with emollients and soap substitutes. If the rash is itchy or unsightly, 1% hydrocortisone ointment is safe and helpful on the face and body. As the condition is not itchy and resolves spontaneously within the first year of life, simple reassurance for the parents may be all that is required.

Troublesome cradle cap can be treated with a salicylic acid shampoo (e.g. "Capasal<sup>®</sup>") which can be applied to the scaly areas for a few minutes and then rinsed out with water. It can be used daily until the scales become loosened and can be easily combed off.

#### 16.2.2 Adult Seborrhoeic Dermatitis

This usually begins in teens or twenties and may be associated with a dry, itchy scalp (dandruff = pityriasis capitis) with flaking but little or no erythrema. When there is more inflammation, there will be more erythrema and diffuse fine scaling but no thick scales. If there is deep erythema with a sharp cut off between the involved and uninvolved skin, spreading beyond the hair line and thick scaling, it is more likely to be due to psoriasis.

Most patients with seborrhoeic dermatitis will have an erythematous, slightly scaly rash in a characteristic distribution of the face and body. The rash usually affects the nasolabial folds, the eyebrows and the moustache or beard area of men who have facial hair (Fig. 16.2). The rash may also develop between the eyebrows, behind the ears and on the eyelids (blepharitis). There may be an associated dermatitis in the ear canal (otitis externa). More severe cases may have a mild, non-itchy, erythematous rash over the sternum and between the scapula on the back (Figs. 16.3 and 16.4). Some cases may have an eczematous rash in the axillae, groin, penis and perianal skin.



Fig. 16.2 Seborrhoeic dermatitis in an adult's face. A more severe case on the left; a milder case on the right



Fig. 16.3 Seborrhoeic dermatitis on face and chest in an adult male

Diagnosis of seborrhoeic dermatitis is usually clinical. Skin scrapings and biopsies are normally not necessary and may be unhelpful in making the diagnosis.

#### 16.3 Differential Diagnosis

Seborrhoeic dermatitis (SD) can be confused with atopic eczema in children and adults. The



Fig. 16.4 Seborrhoeic dermatitis in the central part of the chest

latter is usually responds itchy and is associated with other atopic diseases such as asthma, allergic rhinitis and allergic conjunctivitis. SD can also be confused with psoriasis and indeed sometimes coexists with psoriasis (sebopsoriasis) (Fig. 16.5). It can sometimes be difficult to judge where seborrhoeic dermatitis ends and psoriasis begins although psoriasis is usually more red and scaly and has a very sharp cut off between the involved and uninvolved skin. There may also be nail changes or evidence of psoriatic arthritis which would favour a diagnosis of psoriasis. Seborrhoeic dermatitis on the trunk may resemble pityriasis versicolour.

Other conditions that cause a red face such as perioral dermatitis, rosacea, and lupus erythrematosis may be confused with seborrhoeic dermatitis. Contact allergic or irritant dermatitis or a drug eruption may present like seborrhoeic dermatitis. Scalp SD and dandruff are of a con-



Fig. 16.5 The spectrum of disease in SD

 Table 16.1
 Differentiated
 Diagnosis
 for
 seborrhoeic

 dermatitis

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Scalp	– Psoriasis
	– Tinea capitis
	– Dermatitis (irritant or allergic or atopic)
	– Pityriasis amantacea
Face	– Psoriasis
	- Steroid rosacea
	– Lupus (DLE/SLE)
	– Perioral dermatitis
	– Dermatitis (irritant or allergic or atopic)
Body	– Psoriasis
	– Atopic eczema
	- Pityriasis versicolour
Groin	– Psoriasis
	– Pruritis ani/vulva
	– Candidasis
	– Intertrigo
	– Tinea curis
	– Dermatitis (irritant or allergic or atopic)
	– Erythasma
	– Lichen planus
	– Lichen sclerosus

tinuous spectrum of the same disease that affects the seborrheic areas of the body. Dandruff is itchy, restricted to the scalp and it shows no visible inflammation. SD is itchy, flaking or scaling with inflammation. The latter can be confused with pityriasis amantacea or tinea capatis. Flexural seborrhoeic dermatitis may look like intertrigo, erythrasma or flexural psoriasis (Table 16.1).

#### 16.4 Pathophysiology

The aetiology of SD is not fully understood but there is a strong genetic predisposition in most cases and there is often a positive family history of SD, dandruff or psoriasis (Fig. 16.5). It is thought that sufferers may develop an excessive inflammatory response to the commensal yeast, malassezia, which is found in excessive numbers on sufferers. Malassezia refers to a group of yeasts of the genus Malassezia, which has several different species. This group of yeasts are also implicated in malassezia folliculitis and pityriasis versicolour.

SD may belong to a spectrum of diseases with dandruff being the mildest manifestation and psoriasis being the most severe (see Fig. 16.5). Some cases may progress onto psoriasis and there is sometimes a family history of psoriasis in patients with SD and vice versa. Some patients have features of both SD and psoriasis (sebopsorasis). SD may be aggravated by stress, fatigue, depression, Parkinson's disease, epilepsy, excess alcohol or excess sugar in the diet. Certain medications such as buspirone, chlorpromazine, cimetidine, griseofulvin, haloperidol, lithium, interferon alfa and methyldopa can all aggravate it. Underlying illnesses such as diabetes or immune-suppression (e.g. HIV, chemotherapy, systemic steroids) may precipitate or aggravate this condition. Most cases improve in the summer. Many patients go through periods of exacerbation and remissions. It is much less common in the elderly and almost never affects the balding scalp.

### 16.5 Treatment of adult SD

Treatment of SD is symptomatic. A dry, itchy scalp usually responds to a twice or three times weekly anti-dandruff shampoo such as zinc pyriselenium sulphide, thione, ketoconazole ("Nizoral<sup>®</sup> shampoo") or ciclopiroxolamine ("Stieprox<sup>®</sup> shampoo"). Bringing the suds of these shampoos down onto the affected areas of the face and/or body and leaving it soak into the scalp and other areas may help clear the face and body rash as well as the dry, itchy scalp (Fig. 16.6). Some patients may benefit from coal tar or a salicylic acid shampoo (e.g. "Capasal®"). If there is excessive build-up of scale, a salicylic acid ointment (e.g. "Cocois®") left soak in for an hour and then washed out with one of the above mentioned shampoos may help. This product



Fig. 16.6 Mild SD of the face

should be avoided in children less than 6 years old as excessive absorption may cause salicylate toxicity.

More persistent scalp SD may respond to potent topical steroids in scalp lotion like betamethasone ("Betnovate<sup>®</sup>") scalp application or mousse ("Bettamousse<sup>®</sup>") which can be applied on alternate days until the condition is under control. Very potent steroid shampoos such as clobetasol ("Etrivex shampoo<sup>®</sup>") may help in severe scalp SD but it should be washed out after 15 minutes and should only be used for a maximum of 1 month.

A weak topical steroid such as 1% hydrocortisone ointment is safe and effective for SD affecting the face and ears. Some patients may respond to topical ketoconazole cream. Mixing 1% hydrocortisone with an imidazole antifungal such as "Daktakort<sup>®</sup>" or "Canestan HC<sup>®</sup>" can also be safe



Fig. 16.7 Severe SD of the face

and effective for face and ears. More troublesome, resistant cases may respond to topical tacrolimus 0.1% ointment ("Protopic<sup>®</sup>") or pimecrolimus but this is an off-licence indication [2] (Fig. 16.7).

Azelaid acid ("Skinorin<sup>®</sup>") has antifungal as well as antikeratinizing, and anti-inflammatory activity. Azelaic acid has been shown to be helpful in SD with concomitant rosacea or acne [3].

When SB affects the flexures, groin, genitalia or perianal skin it should be treated the same as outlined above for face and ears SD. On the body it usually responds to emollients, avoidance of soaps and other irritants and a moderately potent or potent topical steroid.

Oral anti yeast medications are occasionally required for more severe, resistant cases [2]. Itraconazole ("Sporanox<sup>®</sup>") 200 mg daily for a week and then 200 mg daily for two consecutive days once a month for 6–12 months may help in chronic relapsing cases. Patients on oral isotretinoin for acne who also have SD may find their rash tends to improve on this drug.

#### 16.6 Conclusion

Seborrhoeic dermatitis (SD) is a common, scaly skin condition that usually occurs on the face, scalp and chest. It may be associated with underlying illness such as diabetes or HIV, although the majority of patients are quite healthy. Most patients will have coexisting dry scaly scalp. Treatment is usually with an anti dandruff shampoo for the scalp and 1% hydrocortisone for the face. More resistant cases may need topical calcineurin inhibitors such as tacrolimus ("Protopic<sup>®</sup>").

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