The scaly scalp

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A popular atlas of dermatology lists more than 35 diseases which commonly affect the scalp.[1] Scaling is a prominent feature of several of them. Clearly, a comprehensive review is not possible within the compass of this article. Instead, attention will be focused on some relatively common conditions, which the community pharmacist may be called upon to recognize and treat. The discussion includes advice concerning diagnoses, pitfalls, over-the-counter (OTC) remedies, and when to refer.

Cradle cap

Cradle Cap is the vulgar name for infantile seborrhoeic eczema. The cause is unknown. The baby's scalp becomes pink and scaly, and greasy yellow crusts may also form. The rash may spread to the face and flexures of the ears, armpits, and groin. Rarely, it could become generalized, but never dangerous. The lesions are not itchy, and they disappear with or without treatment after a few weeks. The condition is not infectious, and it does not lead to adult seborrhoeic eczema[2]. The scales of cradlecap can be removed by rubbing with an emollient, such as almond oil, followed by a mild detergent shampoo. Alternatively, 0.5% salicylic acid in a cream base may be employed as a mild keratolytic. The regular use of salicylic acid over a wide area should be avoided in babies because it carries the risk of salicylism due to systemic absorption. Infants with widespread eczema should be referred for medical examination. A prudent pharmacist would not dispense topical steroids on his/her own initiative in this type of situation.

Ringworm of the scalp

Ringworm of the scalp is technically known as tinea capitis. This is an infection of the scalp hairs by one of a number of dermatophyte fungi some of which habitually live on animals or in the soil, while others spread from one human being to another in epidemic fashion. In Malta, the commonest organism is Microsporum canis,[3] which is a species of animal ringworm commonly found on stray kittens. Children are the usual victims. There are patches of redness, scaling and, most important, hair loss in the scalp. Contact with furry animals (kittens, rabbits, goats), multiple cases in a family, and concomitant ringworm on the body are useful aids to diagnosis. A boggy swelling (kerion) may develop in neglected or mistreated cases, and this could lead to permanent hair loss due to scarring in the area. Tinea capitis requires careful systemic treatment to prevent such complications. Suspected cases should consequently be referred immediately for specialist care. The use of topical anti-fungal preparations at this stage may pre-empt an accurate mycological diagnosis.

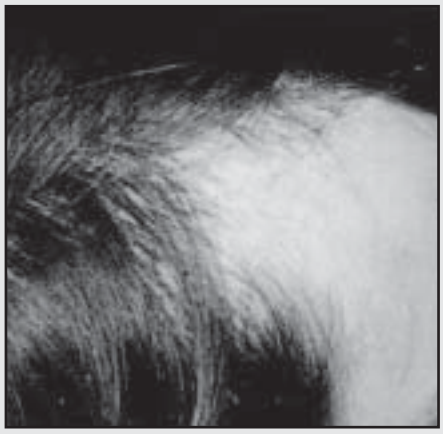

Figure 1: Tinea Capitis (Ducray archives)

Dandruff and adult seborrhoeic eczema

Seborrhoeic eczema affects approximately 5% of adults. It is even commoner in Parkinson's disease, and in HIV/AIDS where it may be the presenting complaint. Our understanding of seborrhoeic eczema turned full circle over the years. In the 19th century Sabouraud implicated Pityrosporum ovale after he observed it in the scales. However, this yeast is also present as a commensal in normal skin, and interest dwindled when it was determined that seborrhoeic eczema responds to topical steroids which, if anything, should make the putative 'infection' worse. Interest revived with the introduction of ketoconazole. This antifungal agent clears seborrhoeic eczema, albeit temporarily, administered orally. Furthermore, the association with HIV/AIDS could be related to overgrowth of P.ovale due to immunosuppression. Nowadays pityrosporicidal additives are included in many shampoos and other formulations intended for the anti-dandruff market, common dandruff being generally regarded as a mild variety of seborrhoeic eczema. Often, the diagnosis of seborrhoeic eczema can be made visually upon presentation because the erythema and flaking on the scalp, eyebrows and nasolabial folds plus dandruff deposited on the shoulders are so embarassingly obvious. Leading questions concerning covert patches in the praesternum, interscapular area, and possibly flexures may convince the client that he or she (seborrhoeic eczema is commoner in men) has come to the right establishment. Dandruff and seborrhoeic eczema are likely to persist, with improvement in the summer. In the winter, the face should be protected from dessicating winds. Common dandruff should respond to shampoos containing selenium, zinc pyrithione, tar, or 2% ketoconazole in difficult cases. The pharmacist can improve the chances of success by explaining the correct mode of application, for poor technique may account for treatment failure. Some modern facial moisturizers incorporate piroctone olamine or similar anti-fungal agents which may safely be used in the long-term control of facial seborrhoeic eczema. Another non-steroidal anti-seborrhoeic facial preparation contains 5% lithium succinate, but this is not yet available on the local market. On the face, seborrhoeic eczema must be distinguished from rosacea which requires appropriate treatment. In the scalp, seborrhoeic eczema may overlap with psoriasis which is more difficult to treat. In other areas of the body, dermatological referral may be indicated to exclude ringworm, candidiasis, erythrasma, psoriasis, or other disorders of keratinization which mimic seborrhoeic eczema.

Psoriasis

Psoriasis affects approximately 2-3% of the general population.[4] It is the paradigm for chronicity in dermatology, so much so that in Malta severe psoriasis is listed among the diseases which entitle patients to free treatment on Schedule V Part 2 arrangements. The frequency and chronicity of psoriasis are just two of the many aspects which make it so important in terms of personal hardship[5] and economic costs to the community.[6] The Psoriasis Association of Malta is a useful source of information on the local scene.[7] Immunological derangements are implicated in the aetiology of psoriasis but the fundamental cause remains mysterious, and so symptomatic remedies abound.

The scientific rationale is to reduce the rate of epidermal cell turnover which is accelerated in the plaques and which, in the scalp, is responsible for the well-defined raised areas of salmon redness and heaped-up silvery scales which feel like a ploughed field when running the fingers through the hair. There is no hair loss except in an unusual variant called Pityriasis amiantacea which affects children and in which asbestos-like scales (hence the name) cling to the hair shafts. There is a genetic predisposition to

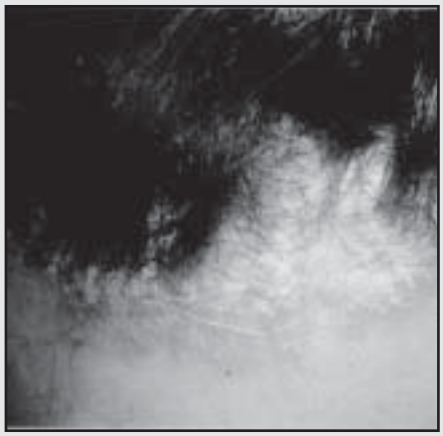

Figure 2: Scalp Psoriasis (Ducray archives)

psoriasis, and the presence of confirmed disease in forebears is a useful pointer to diagnosis. Other possible important factors in the outbreak of psoriasis are streptococcal infections, stress, intercurrent illnesses, operations, physical accidents, and drugs - particularly anti-malarials and lithium. Patients may develop tell-tale changes in the finger nails consisting of pits or areas where the nail plate no longer sticks to the underlying bed (onycholysis). These nail changes are further clues to diagnosis. Spontaneous remission of psoriasis is common in the summer, and ultraviolet therapy on an outpatient basis is a very useful alternative for treatment of patches on the body and which is available all the year round. Private use of domestic ultraviolet sources should not be encouraged because of the risk of sunburn in the short term and skin cancer in the long run. Emollients are useful OTC adjuncts in the control of dryness, scaling and irritation. Regular use of emollients may reduce the need for prescription medications like topical steroids. There are several proprietary formulations on the market. Some are oily and designed to be dispersed in the bath water. Others produce a lather and are meant to be used as substitutes for soap. Several are oil in water emulsions intended to be applied directly to the skin. The pharmacist should help the client to understand the product clearly, thus preventing it from being put to the wrong use. A number of OTC emollients incorporate

urea and lactic acid which help the epidermis to retain moisture. Others contain 2% salicylic acid or 5-15% alpha-hydroxy acids (AHAs) which help desquamation. Tar may also be included as an emollient ingredient. Crude tars are chemical mixtures obtained from the destructive distillation of organic material. They have soothing and keratolytic properties, which have been exploited for the treatment of psoriasis long before their ability to reduce epidermal cell turnover was proven. Crude tars stain and smell. Refinement improves acceptibility but reduces efficacy. Extemporaneous coal tar formulations are still an important standby in the hospital treatment of psoriasis. For a very long time coal tar has also been used in a wide variety of proprietary OTC products including soaps, shampoos, lotions, creams and ointments, but its use in cosmetic products is currently viewed with some anxiety due to its carcinogenic potential.[8] Tar obtained from bituminous schists (fossilized fish) is not carcinogenic, and upmarket "parapharmacy" products containing them (in combination with some of the other ingredients mentioned previously) have recently hit the local market. Another interesting therapeutic adjunct which has become available locally is the mineral salts from the Dead Sea.[9] The anti-psoriatic benefits of the Dead Sea climate have been experienced by many European holidaymakers. The export of these minerals from the area is an attempt to reproduce just one of the components of the therapeutic regimen at home. Very severe psoriasis may need addressing with systemic anti-metabolites, retinoids, or immune-modulating drugs, and dermatological consultation is clearly imperative here. In addition up to 10% of patients may suffer from associated arthritic symptoms which may require attention by a rheumatologist. The natural history of psoriasis is notoriously unpredictable and isolated interludes of spontaneous remission may be interspersed with frustrating episodes of relapse.

Conclusion

Scaliness of the scalp is a relatively common complaint. It can be a nuisance, especially if associated with embarrassing pruritus. There are many possible causes, and specialist consultation may occasionally be required to put the problem in its proper perspective. As explained, a scaly scalp may be part of a more widespread dermatosis, which requires a holistic approach to management. This article focused upon those relatively common situations where a community pharmacist could play an important role in providing primary care or in instigating medical referral. Spatial constraints imposed a thumbnail sketch approach. Hopefully the reader will be stimulated to fill in some of the details by looking up the references provided below.

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Errata corrige

The Editorial Board apologizes for the following two errors which inadvertently appeared in the article entitled "The Concept of Social Pharmacy" published in the Summer 2003 issue of the Chronic*ill:

p.12: The email address of Prof. EW Sørensen should read 'ews@dfh.dk' instead of 'ews@dfk.dk'
p.15: Column 4 of Row 3, Table I (Dominating Method) should read 'Qualitative' instead of 'Quantitative'