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Vitiligo: what general physicians need to know

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Vitiligo is a common depigmenting skin disease that causes a great deal of distress. A better understanding of the condition and a grasp of the basic principles of management can help the physician when faced with a patient concerned by their pigment loss. In this editorial, the diagnostic process and primary management of vitiligo will be discussed. For more detailed information recently published guidelines, mainly aimed at dermatologists, are available.[1]

Vitiligo usually begins after birth and, though it can develop in childhood, the average age of onset is about 20. Most commonly, vitiligo produces symmetrical depigmented areas of skin that otherwise appear normal (Fig 1). A less frequent type, seen more with an onset in childhood, is the segmental form in which unilateral depigmentation develops (Fig 2).

One of the main reasons why vitiligo is important is that it can have a major psychological impact, especially in patients with a dark skin colour. When depigmentation on the face or hands is visible to others, the result can be low self-esteem, social anxiety, depression, stigmatisation and, in extreme cases, rejection.[3] In people with a white skin colour, vitiligo may cause little concern but this is not always the case. Vitiligo is often ignored or dismissed by doctors, perhaps because they think it is of no importance or because they are unsure of what to do about it.

Aetiology and diagnosis

In vitiligo, there is loss of functioning melanocytes in the epidermis, resulting in white macules, and sometimes in the hair roots as well, producing patches of white hair.[4] The melanocytes may be lost by autoimmune destruction (eg cell or autoantibody mediated) or by a self-destructive mechanism such as oxidative stress.[5] In segmental cases, neurological involvement can be suspected and there may be changes in neuropeptides in the skin.

The diagnosis of vitiligo is often straightforward (though not always so) but treatment is difficult. It is most easily confused with pityriasis versicolor, a superficial yeast infection in which hypopigmented often slightly scaly patches appear on the trunk. In piebaldism, the pigment loss is present at birth and typically affects the forehead or trunk. In albinism, there is generalised loss of pigment including in the eyes, due to defective manufacture of melanin, evident from birth.

In common with the apparent autoimmune aetiology in some cases, patients with vitiligo often develop autoimmune thyroid disease or other autoimmune diseases. It is not uncommon for vitiligo to be observed incidentally in patients attending an endocrine clinic with a thyroid problem or with diabetes. A history of autoimmune disease in a family member is seen in about a quarter of patients.[6] All adults with vitiligo should have their thyroid function and thyroid autoantibodies checked as thyroid disease can be present in up to 30% of cases.[1,6]

The prognosis for repigmentation in most patients with vitiligo is not very good. In most cases, vitiligo is a chronic disease, progressing in a step-wise fashion with periods of relative inactivity. Spontaneous repigmentation is uncommon.

Treatment

Treatments for vitiligo are generally not very effective. In managing a patient with the disease, the initial approach is to make a definite diagnosis, assess the extent of the condition and its effect on the patient's quality of life. Psychological support should be offered with adjuvant treatments such as camouflage cosmetics (available widely often through pharmacies and the British Red Cross) and the use of fake tanning products and sunscreens. It is appropriate after discussion to offer the option of no treatment.

Active therapies open to the non-specialist, after an explanation of potential side effects, include the topical use of a potent or highly potent steroid or a calcineurin inhibitor usually for two months in the first instance, whereupon an assessment is made of

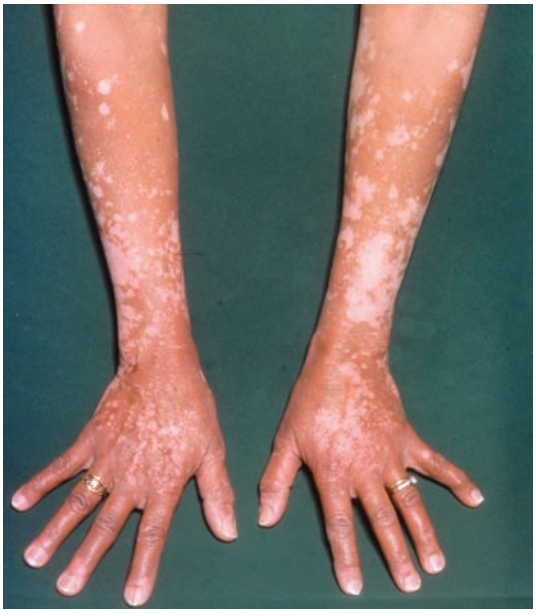

Fig 1. Generalised non-unilateral symmetrical type 'vitiligo vulgaris'. Reproduced with permission from Elsevier.

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whether or not there has been a response. It can be helpful to use clinical photographs to monitor the effect of treatment.

A highly potent (eg clobetasol) or potent (eg betamethasone) topical steroid can repigment vitiligo but only in a relatively small proportion of cases (41% in one study after two months but even then skin atrophy was a common complication).[7]

Calcineurin inhibitors have been used successfully in vitiligo. In adults topical pimecrolimus for eight weeks induced 50–100% repigmentation for lesions on the trunk or extremities.[8] In children, topical tacrolimus used for two months induced 49% repigmentation of lesions on the face or thorax but not the hands.[9] Stinging is a common initial side effect with topical pimecrolimus and tacrolimus and patients should be advised that it may occur.

There is understandable interest in whether oral drugs can arrest vitiligo or induce repigmentation. In adult patients with active generalised types of vitiligo, a clinical study showed that oral dexamethasone could arrest the progression of vitiligo, but there was poor objective evidence for repigmentation and side effects were common.[10] Hence oral systemic steroids used in this way are not recommended in the treatment of vitiligo. Some clinicians have used the so-called 'mini-pulse' therapy but there are few reports. In one open study, oral betamethasone (0.1 mg/kg/day) as a monotherapy given on two successive days per week over 12 weeks, tapering by 1 mg each month over the next 12 weeks, produced a marked or moderate improvement in only three of 20 subjects, of whom 12 experienced weight gain.[11]

Psychological support and strategies are an important part of the treatment. The patient's quality of life and coping mechanisms may improve over time. Cognitive behavioural therapy strategies rather than avoidance or concealment may be associated with better coping.[12] The availability of clinical psychology services is patchy in the UK. Patients often derive benefit from talking with others who have the disease and information about the Vitiligo Society (www.vitiligosociety.org.uk) should be available to those that want it.

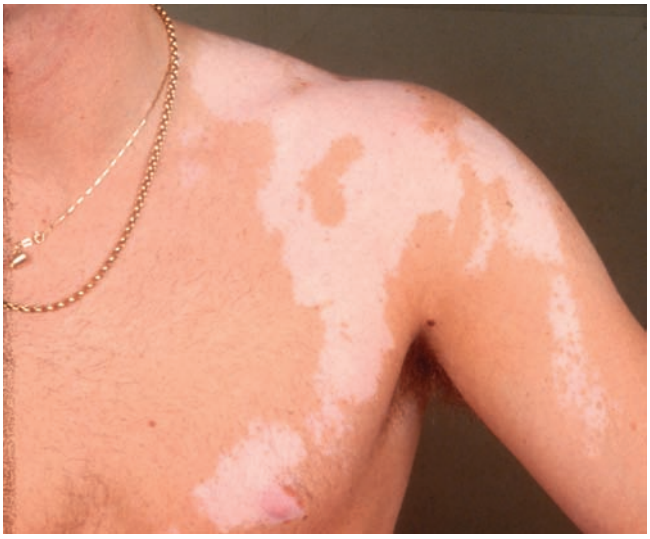

Fig 2. Unilateral segmental type vitiligo, conforming to overlapping thoracic dermatomes. Reproduced with permission from Elsevier.

Specialist referral to a dermatology unit is suggested for patients whose condition is difficult to diagnose, unresponsive to straightforward topical treatments, or causing psychological distress. Dermatologists have at their disposal more intensive topical therapies and phototherapy, both ultraviolet (UV) B and psoralen and UVA, with depigmenting treatments and possibly surgical approaches in selected cases.

Vitiligo is often a problematic disease that warrants serious consideration. It causes considerably more psychological distress than might initially be expected by the physician. It can be associated with internal diseases principally of the endocrine system and it is always worthwhile checking the thyroid function. Straightforward topical treatments are available for all physicians to use in selected cases with the appropriate precautions, but referral for a dermatologist's opinion is appropriate when there is diagnostic difficulty, patient concern or progression of the disease.

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