Hair Disorders and Impact on Quality of Life

22

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Introduction

Hair Loss

Alopecia, or hair loss, is defined as loss of hair from the scalp or other parts of the body. It is a common clinical complaint that constitutes a major source of distress for patients. Although the cause of hair loss in the majority of cases is easily diagnosed, sometimes diagnosis as well as treatment can be quite challenging.

The main subcategories of alopecia are:
(a) Non-scarring or non-cicatricial alopecias
(b) Scarring or cicatricial alopecias

In addition, many hair shaft disorders can produce hair shaft fragility, resulting in different patterns of hair loss.

The psychological impact of alopecia is significant. Hair is considered an essential part of overall identity: especially for women, for whom it often represents

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femininity and attractiveness. Men typically associate a full head of hair with youth and vigour. Therefore, patients with alopecia can present with low self-esteem and poor self-image, feelings of isolation, anxiety, depression, or even suicidal ideation. Psychological issues are more severe at the onset of symptoms and early recognition and management through a holistic approach is crucial.

Alopecia is defined as loss of hair from the scalp or the body. Hair loss has a significant psychological impact on patients, who may present with low self-esteem, poor self-image, depression, or even suicidal ideation. A holistic approach is crucial for the management of the hair disorder itself as well as the psychosocial co-morbidities.

Practice Point
Always ask your patients how they feel about their hair disease and its impact on their quality of life. Always ask for a potential triggering stressful life event during clinical history. At the moment, there is no standardised questionnaire to evaluate Quality of Life (QoL) in hair diseases.

Excess Hair and Hair in the Wrong Place

Other hair disorders include hirsutism and hypertrichosis. Hypertrichosis is excessive hair growth over and above the normal for the age, sex and race of an individual, in contrast to hirsutism, which is excess hair growth in women following a male distribution pattern. Hypertrichosis can develop all over the body or can be isolated to small patches and it can be congenital (present at birth) or acquired (arises later in life).

Classification and Aetiology

The main clinical classification of alopecias is based on the presence or loss of hair follicles and includes: (a) cicatricial and (b) non-cicatricial alopecias (Table 22.1). Another clinical classification is based on the extent of the disease and includes: (a) localised or focal and (b) generalised alopecias (Figs. 22.1a and 22.1b).

From the psychodermatology point of view, an updated classification of alopecias can be suggested based on the presence of primary or secondary psychosocial co-morbidities, and includes: (a) hair diseases that cause secondary psychosocial co-morbidities and (b) psychological and psychiatric diseases that can affect the scalp and hair (secondary alopecia) (Table 22.2).

Table 22.1 Commonest types of scarring and non-scarring alopecias

Commonest types of alopecia	
Non-scarring	Scarring
Androgenetic alopecia (AGA) Pattern hair loss (PHL)	Discoid Lupus erythematosus (DLE)
Alopecia areata (AA)	Lichen planopilaris (LPP)
Trichotillomania	Frontal fibrosing alopecia (FFA)
Telogen effluvium	Folliculitis decalvans
Anagen effluvium-chemotherapy induced	Dissecting cellulitis of the scalp
Traumatic	Central centrifugal cicatricial alopecia (CCCA)
Syphilitic	Chronic alopecia areata (AA)
Tinea capitis	Chronic androgenetic alopecia (PHL)
Drug-induced	Pseudopelade of Brocq
	Morphea
	Alopecia mucinosa
	Alopecia neoplastica

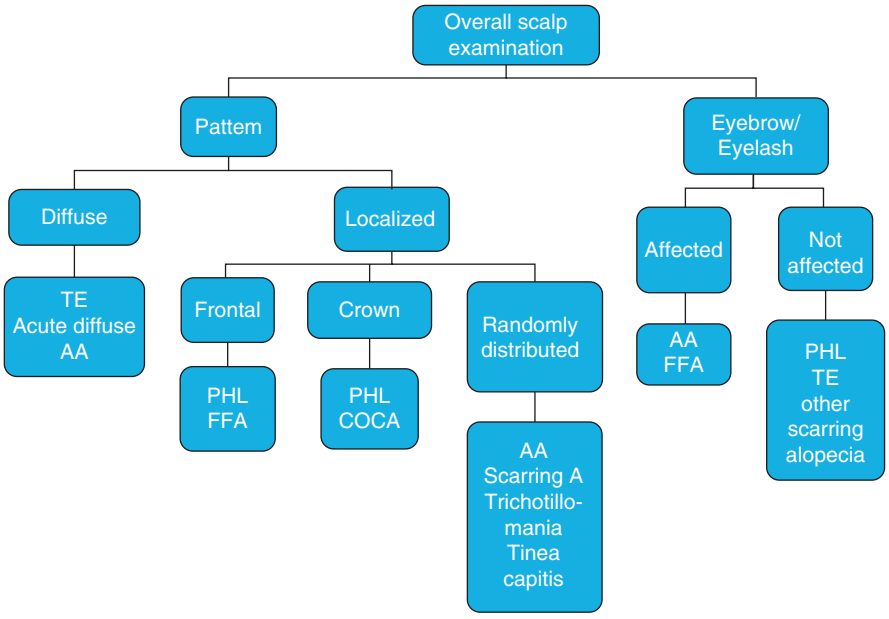

Fig. 22.1a Algorithmic approach on alopecias, based on pattern. Mubki T, Rudnicka L, Olszewska M, Shapiro J. Evaluation and diagnosis of the hair loss patient: part I. History and clinical examination. J Am Acad Dermatol. 2014 Sep;71(3):415.e1-415.e15. A, Alopecia; AA, alopecia areata; CCCA, central centrifugal cicatricial alopecia, scarring; DLE, discoid lupus erythematosus; FD, folliculitis decalvans; FFA, frontal fibrosing alopecia; LPP, lichen planopilaris; PHL, patterned hair loss; PPB, pseudopelade of Brocq; TE, telogen effluvium

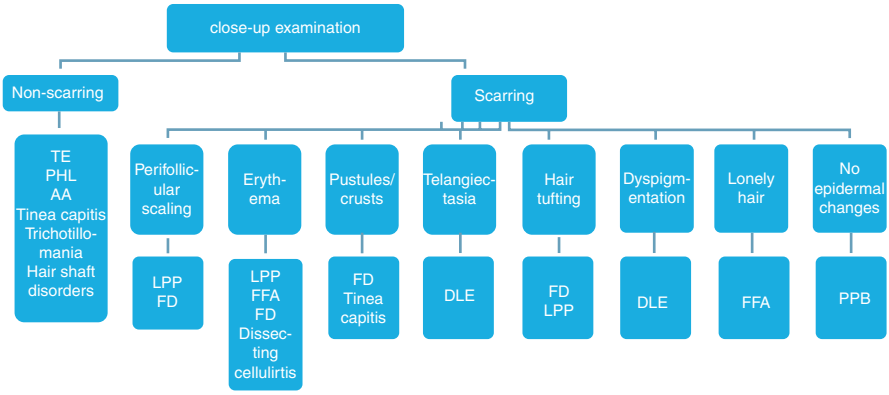

Fig. 22.1b Algorithmic approach on alopecias, based on the presence/absence of scarring. Mubki T, Rudnicka L, Olszewska M, Shapiro J. Evaluation and diagnosis of the hair loss patient: part I. History and clinical examination. J Am Acad Dermatol. 2014 Sep;71(3):415.e1-415.e15. A, Alopecia; AA, alopecia areata; CCCA, central centrifugal cicatrical alopecia, scarring; DLE, discoid lupus erythematosus; FD, folliculitis decalvans; FFA, frontal fibrosing alopecia; LPP, lichen planopilaris; PHL, patterned hair loss; PPB, pseudopelade of Brocq; TE, telogen effluvium

Table 22.2 Psychodermatological classification of alopecias

Dermatological hair disease with psychosocial co-morbidities	Psychological and psychiatric disease that may affect the scalp and hair
Alopecia areata	Trichotillomania
Androgenetic alopecia (males and females)	Body dysmorphic disorder
Telogen Effluvium	Post-traumatic stress disorder
Chemotherapy-induced anagen effluvium	Delusional infestation
Scarring alopecias	Depression
	Anxiety

Patho-aetiology

The pathophysiology of non-scarring alopecias is different depending on the type of alopecia. In alopecia areata, aetiology is unknown, but the most common hypothesis involves autoimmunity in the form of T cell-mediated pathway affecting the peribulbar area. In androgenetic alopecia, both genetic and hormonal androgens play a role in the pathogenesis. In telogen effluvium, the shedding of telogen hairs is under the influence of hormone or stress, but sometimes the trigger is not very clear. In tinea capitis, the dermatophytes infection is responsible for hair loss. In anagen effluvium, the shedding of anagen hairs is under the effect of chemotherapeutic agents.

Cicatricial (scarring) alopecia results from irreversible damage to epithelial stem cells located in the bulge region of the hair follicle, generally as a result of inflammatory mechanisms (e.g. in the context of autoimmune disease). This group of permanent hair loss disorders can be classified into distinct subgroups, characterised by the predominant perifollicular inflammatory cell type, such as lymphocytic, neutrophilic, mixed, or non-specific. Clinically, they are characterised by the loss of visible follicular ostia within the area of alopecia, and often accompanied by epidermal changes and signs of inflammation.

Alopecias can be classified based on: (a) the extent of the disease (localised and generalised) and (b) the presence/loss of follicular ostia (non-cicatricial and cicatricial). Other classifications are based on the duration of the lesions (congenital and acquired) or the cellular infiltrate for the cicatricial alopecias (lymphocytic, neutrophilic, mixed, non-specific).

From the psychodermatology point of view, alopecias can be classified as: (a) dermatological hair diseases with secondary psychosocial co-morbidities and (b) primary psychiatric or psychological diseases that may affect scalp and hair.

Clinical and Psychodermatological Approach on Patients with Hair Loss

Diagnostic algorithms (Figs. 22.1a and 22.1b) can be very useful in the clinical approach of alopecias. Clinical as well as trichoscopic features almost always provide us with a diagnosis and in few cases, a biopsy is needed.

Practice Point
Always make a diagnosis of the hair disorder, prior to treatment initiation. It is important to provide the patient with a management plan, explain the prognosis and manage their expectations.

Alopecias have a significant impact on patients' quality of life. Psychosocial co-morbidities are really common and it is crucial to spot them and offer a holistic approach to our patients. Stress and hair loss seem to part of a vicious circle, as stress can lead to hair loss and the opposite. Apart from stress, patients with hair disorders appear to have lower self-esteem, feel more isolated and develop more secondary psychiatric diseases, such as depression, compared to healthy sex- and age-matched controls. During the consultation it is important to ask direct and open

Table 22.3 Standardised screening questionnaires for assessment of depression, anxiety, suicidal ideation, body dysmorphic disorder and quality of life

Questionnaires	Condition
PHQ-9	9-item questionnaire for depression
GAD-7	7-item questionnaire for anxiety
HADS score	14-item questionnaire for depression and anxiety
Body dysmorphic disorder questionnaire	Body dysmorphic questionnaire
Short Form Health Survey (SF-36)	Self-assessment health questionnaire
DLQI	10-item questionnaire (not specific for hair disorders)
Alopecia Areata Quality of Life Index	Specific questionnaire for AA
Columbia Suicide-Severity Rating Scale	Assessment of suicidal ideation

questions, such as "Do you feel low because of your hair loss?" or "How do you feel about your hair loss?". In that way, patients feel that the physician is actually interested in their condition and they engage better, which results in a better therapeutic result and satisfied patients.

Standardised screening questionnaires are useful in assessing patients' mental state as well as their well-being (Table 22.3).

In the following paragraphs, we analyse in detail the main non-scarring and scarring forms of alopecia.

Practice Point
Ask your patients to fill in screening questionnaires, while they are in the waiting room. They feel that you are actually interested in them as a whole and you can have a very quick assessment of their mental health and well-being, even before seeing them.

Alopecia Areata

Alopecia areata (AA) is an autoimmune condition characterised by transient, non-scarring hair loss at its early stages. Scarring can occur in later stages. Alopecia areata affects nearly 2% of the general population at some point during their lifetime. It usually presents before the age of 20 years. Patients may have a personal or family history of other autoimmune diseases, such as Hashimoto's disease, diabetes type I, vitiligo. Hair loss can take many forms, ranging from loss in well-defined patches to diffuse or total hair loss, which can affect all hair-bearing sites and not only the scalp. Patchy alopecia affecting the scalp is the most common type, while 5% of patients with AA develop alopecia totalis. There are different forms of alopecia areata (Table 22.4). On trichoscopy, exclamation mark hairs may be present at the periphery of the patches, an indicator of active disease. Other key trichoscopic features of AA are yellow and/or black dots, broken hairs and short vellus hairs, which are a sign of early regrowth. In chronic cases of AA, follicular ostia may be lost.

Table 22.4 Types of alopecia areata (AA)

Types of alopecia areata (AA)	
Patchy AA	One or multiple separate or reticular patches of hair loss
Alopecia Totalis	Near-total or total hair loss affecting the scalp
Alopecia Universalis	Near-total or total hair loss on hair-bearing areas on body
Alopecia Incognita	Diffuse total hair loss and short miniaturised regrowing hair
Ophiasis	Hair loss in a band-like shape along the circumference of the head, more specifically along the border of the temporal and occipital bones.
Sisaipho	Extensive scalp alopecia, sparing its periphery
Marie Antoinette Syndrome	Acute episode of diffuse alopecia with very abrupt "overnight greying" of pigmented hair

Skin biopsies of AA, although rarely needed, show a lymphocytic infiltrate in and around the bulb or the lower part of the hair follicle in the anagen (hair growth) phase, like a swarm of bees. A breakdown of the immune privilege of the hair follicle is thought to be an important driver of AA. Genetic studies in patients and mouse models showed that alopecia areata is a complex, polygenic disease.

Psychodermatology in AA

It has long been postulated that psychological events may trigger episodes of AA in some individuals. The prototypic stress-associated neuropeptide, substance P, in organ culture models of human scalp hair, can induce loss of the hair follicle immune privilege, which is key in the pathogenesis of AA. Studies have shown that substance P is increased in early AA lesions as well as CD8 T cells that express the neurokinin-1 receptor, which mediates substance P action, supporting the "stress-related" theory. In case series there is usually a history of childhood and lifetime traumatic events. In many studies, stressful and life traumatic events (i.e. death of spouse, divorce, fire at work, etc.) may act as triggers that increase the incidence of disease episodes when the predisposing circumstances are present

However, in larger series, stress has been identified as a potential trigger in less than 10% of patients. Studies have emphasised the role of trait-anxiety, stress perception, and vulnerability as major factors of AA development. Therefore, personality characteristics, such as alexithymia and poor social support, may be of more importance in the development of AA in comparison to the frequency of stressful events.

Undoubtedly, AA has a significant impact on patients' feelings and well-being. The individual coping response to alopecia varies from the alopecia being an inconvenience that has little or no impact on leading a normal life, through to a life-changing experience that can have a devastating impact on psychological well-being with consequences that include clinically significant depression, loss of employment and social isolation. In a systematic review by Tucker et al., AA appeared to have a negative impact on self-esteem, and increased levels of depression, anxiety, phobic

reactions and paranoia. Females seem to be more commonly affected and the psychological impact is more severe. Age also plays a key role, as patients younger than 20 years old have more evidence of clinical depression compared to adults who present more with anxiety symptoms. Finally, in addition to medical treatments, (e.g. topical, intralesional or oral corticosteroids) in AA patients with depression, there may be a beneficial response of hair regrowth with the use of antidepressants.

Contributing factors to psychosocial disease include: (a) potential early onset of AA; (b) sudden onset of disease; (c) unpredictable course; (d) disease is profound and it is not easily "hidden"; (e) treatment options at the moment are limited; and (f) even positive response to treatment with hair regrowth can be followed by hair loss again.

For the more severe forms of AA, such as alopecia universalis and totalis, treatment armamentarium is limited, although Janus Kinase (JAK) inhibitors appear to be a promising option. The clinician has an important role in recognising the psychological impact of alopecia and in helping the patient to overcome and adapt to this issue. Some patients find camouflage extremely important and helpful. Some others will need professional support from a clinical psychologist or other practitioners skilled in managing disfigurement. Many benefit from contact with patient support organisations, for example the National Alopecia Areata Foundation (https://www.naaf.org/) and Alopecia UK (http://www.alopeciaonline.org.uk/). In children, alopecia areata can be particularly difficult to deal with. If a parent feels there is a considerable change in the needs of their child (withdrawn, low self-esteem, failing to achieve at school and/or change in behaviour) the child may need to be referred to a paediatric clinical psychologist, educational psychologist or social worker (https://www.naaf.org/alopecia-areata/living-with-alopecia-areata/alopecia-areata-in-children).

Alopecia areata (AA) is an autoimmune disorder causing a **significant impact on patients' quality of life. Psychiatric co-morbidities are very common** especially in more severe forms, such as alopecia totalis or universalis. There is an increasing need to recognise and treat them. Offer your patients all available treatment options for their hair, although limited, and encouraging them to take part in trials for new drugs and treat also the psychiatric concomitant disorders, offering a **holistic management plan.**

Practice Point
Apart from treatment for the AA and the psychosocial co-morbidities, offer your patients camouflage options as well as encouraging them to join patient support organisations.

Androgenetic Alopecia—Pattern Hair Loss (Males and Females)

Androgenetic alopecia (AGA) is the most frequent form of alopecia in men and women. It is characterised by progressive hair thinning and hair loss, usually in a pattern distribution. The onset may be at any age following puberty and its prevalence increases with age. By the age of 70, 80% of Caucasian men and up to 40% of women will have been affected by AGA. As hair is an important feature of image both in Western and developing societies, hair loss can cause significant psychological distress.

Androgenetic alopecia is a genetically determined hair disorder characterised by the effects of dihydrotestosterone (DHT) in the androgen-related areas of the scalp. DHT plays a key role in shortening the anagen phase of the hair cycle, from a usual duration of 3–6 years to just weeks or months. It further contributes to the miniaturisation of the follicles which results in the progressive production of fewer and finer hairs. AGA can also affect female patients. Women with AGA often have excessive levels of androgens as well as a genetic predisposition. These women also tend to suffer from acne, irregular menses and excessive facial and body hair. These symptoms are suggestive of polycystic ovarian syndrome (PCOS), although the majority of women with PCOS do not experience hair loss. Less often, congenital adrenal hyperplasia may be responsible. Females that are losing their hair with age are more likely to present with female pattern hair loss, in which hormone tests are normal. The distribution is also different compared to men, suggesting that a different pathogenetic mechanism may be implicated.

In both males and females with androgenetic alopecia, the transition from thick, pigmented terminal hairs to thinner and finally shorter non-pigmented vellus hairs in the involved areas is gradual. As the androgenetic alopecia progresses, more hairs are in the telogen phase, while the anagen phase has been shortened. Hence, there is a noticeable hair shedding.

Women with androgenetic alopecia generally lose hair diffusely over the crown and there is not a definite bald area. The frontal hairline is often preserved in contrast to male patients, who develop a gradual frontotemporal recession. The Hamilton–Norwood scale is used to assess the level of AGA in men and the Ludwig scale or the newer Olsen scale (with the characteristic Christmas tree pattern) in women.

The diagnosis is straightforward in the majority of cases. Clinically, thinning of hair is observed in the androgen-related areas. The distribution has been described above for both sexes. On trichoscopy, a hair shaft diameter variability of more than 20% is diagnostic. Other trichoscopic features include the presence of a single hair in the follicle, unlike normal unaffected follicles which bear up to four terminal hairs, white dots, the peripilar sign, a honeycomb pigmented pattern over the bald areas and/or the presence of empty follicles.

Main treatment options include: (A) for men: (a) topical minoxidil (foam or lotion), (b) finasteride, (c) dutasteride (off label), (d) low-level laser, (e) platelet-rich plasma (PRP) (off label) and (f) hair transplantation; (B) for women: (a) topical

minoxidil, (b) spironolactone, cyproterone acetate, flutamide and cimetidine can block the action of dihydrotestosterone on the scalp (off label), (c) platelet-rich plasma (PRP) (off label), (d) finasteride and dutasteride (off label and not in women of childbearing potential), (e) hair transplantation in selected cases. Wigs and cosmetic camouflage can be also very helpful in disguising the areas of AGA.

Androgenetic alopecia (AGA) or pattern hair loss (PHL) is a genetically determined hair disorder affecting both men and women, with its pathogenesis being mainly attributed to the increased sensitivity of hair follicles to the action of dihydrotestosterone (DHT). It is characterised by progressive hair loss with a different distribution between men and women, causing a significant impact on patients' quality of life.

Psychodermatology in AGA/PHL

Studies have shown that bald men are perceived as being older, less attractive and less confident than men with normal hair. Balding can preoccupy the sufferer and cause stress, lower body image satisfaction, lower self-esteem and even lower sex-drive, affecting their relationships. These effects are more marked in younger men, single men and those with an earlier hair loss onset and larger extent. A negative impact on QoL is also more pronounced in young men, although not restricted to this age group. A significant contributing factor to distress is the fact that there is treatment effect only when medication is used. If discontinued, any hair that has been maintained or regrown as a result of the medication will be lost, resulting in a need for indefinite use. And studies have shown that balding men report frequent peer teasing about their condition. In a non-clinical sample, such teasing was reported by 45% of men with modest hair loss and by 79% of men with more extensive baldness. In a study of men seeking treatment for AGA, 60% reported being teased. Men who have a successful treatment experience also seem to experience an improvement in their self-esteem and their perception of personal attractiveness.

The psychosocial impact of hair loss can be more severe for women, since there is little understanding or acceptance of the condition. Women may also have issues of low self-esteem and feeling unattractive. While some men may cope well, as they can cut their hair short and this limits the impact of balding, for women it is much harder to cover the bald areas or the areas with thinner hair. Furthermore, it is much harder to apply topical treatments on longer hair.

Female pattern hair loss has been shown to have a negative effect on daily life, lowering self-esteem and causing social co-morbidities. Studies comparing the impact of hair loss on men and women have shown that women suffer more emotional distress and make significantly more efforts to cope with hair loss, which can be attributed to the fact that hair loss in women is not seen as a normal age-related process, as in men. The impact of hair loss is not uniform and it can be affected by

the severity, whether the hair loss is noticeable by the social environment or not, and by age (a younger age of onset has a greater psychological impact). Finally, women may be more prone to a secondary psychiatric disorder due to their hair loss, such as depression, anxiety and body dysmorphic disorder. Nevertheless, compared to men, it is more socially acceptable and easier for women to use forms of camouflage to disguise their hair loss.

Androgenetic alopecia (AGA) or pattern hair loss (PHL) can cause stress, lower self-esteem, lower body image satisfaction, depression, anxiety, body dysmorphic disorder and even suicidal ideation in rare cases. Women seem to be more severely affected by psychosocial co-morbidities compared to men. The progressive nature of the disease, its permanent result as well as the lack of effective lasting treatment contribute to the psychosocial co-morbidities of patients with AGA.

Telogen Effluvium

Practice Point
The majority of AGA treatments are not on prescription and off licence. Nevertheless, offer all the licensed and off-label treatments to your patients, as majority of them are happy to try them and they are not put off by the cost or the lack of evidence-based data. Offer also hair transplant, if needed, as well as camouflage options.

Telogen effluvium (TE) (Fig. 22.2) is a common hair disorder characterised by a disturbance of the hair cycle where hair follicles become synchronised and enter the regression (catagen) and resting phase (telogen) together, resulting in sudden significant hair loss. When hairs reach the end of the telogen phase (after 2–3 months), they enter into exogen and the old hair is lost before the follicle re-enters the anagen growth phase.

Common triggers of telogen effluvium are presented in Table 22.5. No cause is found in around a third of people diagnosed with telogen effluvium.

Stress seems to play a key role. A sudden increase in hair shedding, the hallmark of TE, can definitely be very distressing to the patients. However, the short duration of the disease as well as the full recovery are significant factors that make patients feel better. At the molecular level, stress hormones, such as catecholamines alter hair growth by amending the release of various neuropeptides. On the other hand, the hair follicle itself can generate an abundance of stress mediators and thus may directly be involved in the modulation of stress responses at the local level, possibly as part of a "skin stress system".

The diagnosis is based on clinical history and examination. Trichoscopy has limited diagnostic value for TE. Frequent—but not specific—trichoscopic findings for

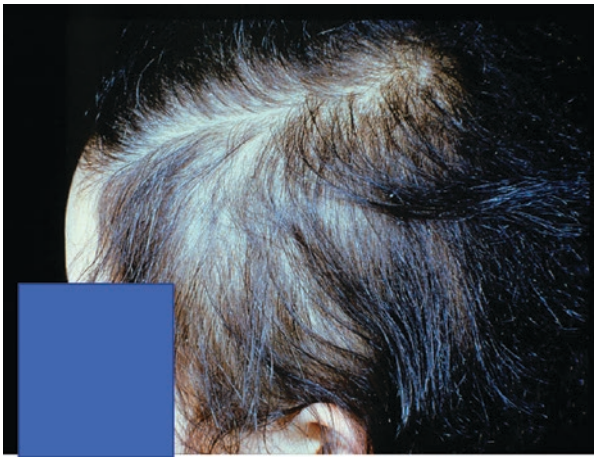

Fig. 22.2 Telogen effluvium. Any hair loss can be very distressing

Table 22.5 Causes of telogen effluvium

Common causes of telogen effluvium	
Pregnancy	Stressful or major life event
Labour	Marked weight loss
Stressful event	Extreme dieting
Recent surgical operation	Skin disorders affecting the scalp
Severe illness, with fever	Medication (new or already being used)
Seasonal	Withdrawal of hormonal treatment (including the pill)

TE include empty hair follicles, a high percentage of follicular units with only one hair and brown perifollicular discoloration (the peripilar sign). Multiple upright regrowing hairs may be observed in the regrowth phase of TE. No significant differences are observed in the trichoscopic findings between the frontal and occipital

Telogen effluvium (TE) is a reversible hair disorder characterised by sudden and significant hair loss. The role of stress is dual. It can be a key factor in the pathogenesis of the disease but also a result of the disease. Stress hormones as well as neuropeptides are involved in the molecular level.

Practice Point
Reassure your patients about the temporary nature of the disease. Explain that they will experience full hair regrowth. In some cases, topical steroid lotions or multivitamins can boost hair regrowth.

areas and can be a useful clue to this difference between TE and FPHL. However, clinicians should be aware of the frequent coexistence of these two conditions.

Treatment includes reassurance to the patients and no further action. Some physicians may prescribe topical steroids of high potency to boost hair regrowth or vitamin and amino acid supplements.

Anagen Effluvium

Anagen effluvium (AE) occurs after any impairment in the mitotic or metabolic activity of the hair follicle. AE or chemotherapy-induced alopecia is caused by exposure to chemotherapeutic agents such as antimetabolites, alkylating agents and mitotic inhibitors used to treat cancer. Other causes of AE include radiation therapy, endocrine diseases, alopecia areata, cicatricial diseases, trauma or pressure, but also pemphigus vulgaris.

Clinically, hair shafts are characterised by tapered fractures. Damage to the matrix results in narrowing of the hair shaft, which finally results in shaft fractures in the area of the narrowing. AE is temporary with hair regrowth typically occurring after 3–6 months of stopping chemotherapy. In some cases, hair regrows despite chemotherapy treatment while in other cases there may be changes in the hair colour and/or texture after regrowth. The diagnosis is based on clinical history mainly. Trichoscopic findings include black dots, monilethrix-like hairs and exclamation mark hairs.

Drug-induced anagen effluvium can be psychologically devastating to the patient. Patients have even refused life-saving or palliative treatments because they could not accept the temporary or prolonged baldness. There are cases where patients felt that hair loss had been more traumatic than the surgical treatment of the cancer itself. AE may also cause negative body image, lowered self-esteem and even anxiety and depression. One of the main reasons for this is that the alopecia serves as a reminder of the cancer to both the patient and the social environment. But there are patients who look more on the bright side and consider the alopecia as a sign of effective treatment. As AE is an inevitable consequence of treatment, patients' concerns and expectations should be managed before the onset of treatment.

When treating AE, patients should be reassured that hair loss is temporary, although some more permanent changes in colour or texture can rarely occur. Topical minoxidil can shorten the duration of alopecia and can be used, although it is not effective in the prevention of AE. There is a lot of controversy about the use of cooling caps and scalp cooling. The application of a pressure cuff on the scalp, when chemotherapy is infused causes local hypothermia and delays the anagen arrest. Nevertheless, hypothermia causes vasoconstriction and reduced blood flow. Therefore, chemotherapy may not reach all the malignant cells that can be present on the scalp and the cooling cap should not be used in patients with leukaemia, lymphoma and other hematologic malignancies. Finally, no evidence-based data

Anagen effluvium (AE) is a reversible hair disorder that is mainly caused by chemotherapy treatment. Hair loss is temporary and full hair regrowth normally happens after the end of the treatment. Patients need reassurance and should be offered camouflage options, such as wigs. Minoxidil can potentially shorten the duration of alopecia.

Practice Point
Reassure your patients about the temporary nature of the disease. Explain that they will experience full hair regrowth. Do not suggest the use of cooling caps and explain to your patient the potential risks so they can take an informed decision.

exist about the different forms of cancer, chemotherapy and the use of cooling caps and its use cannot be suggested. Wigs can serve as a potential camouflage option.

Scarring Hair Loss

Scarring alopecias are characterised by the destruction of the hair follicle and replacement by scar tissue. Inflammatory processes can target the bulge area, where the hair stem cells are found, which leads to the inability for hair regrowth. Moreover, trauma to the scalp or non-scarring alopecias, due to their chronicity, can cause scarring hair loss, without the follicle being the "target". Scarring alopecias can be primary or secondary. The commonest scarring alopecias are presented in Table 22.1. Another classification is based on the type of cell infiltrate, such as neutrophilic, lymphocytic or mixed.

The key point in scarring alopecias is the permanence of the hair loss, which can be devastating for patients. And symptoms, such as pain, pruritus or burning sensation can cause further distress to the patient. Therefore, it is really crucial to spot scarring alopecias at their early stage and treat them accordingly in order to prevent scar formation and loss of hair follicles with often aggressive systemic treatment.

Systemic treatment varies depending on the underlying cause. Few large, randomised, blinded, controlled studies are available. Most treatments are considered off label and may include hydroxychloroquine, dutasteride, oral prednisolone, intralesional triamcinolone, a combination of antibiotics such as clindamycin and rifampicin, doxycycline and more. Although hair transplants theoretically can offer cosmetically acceptable correction, it is important to inform the patient that there is risk of koebnerisation of the disease. Furthermore, a hair transplant attempt should never be performed when there is active disease and inflammation. As scarring alopecias are relatively rare, the psychological impact has not been studied extensively. In a study with 23 patients, 74% of the patients with cicatricial alopecia had

Scarring alopecias are a spectrum of different hair disorders that lead to the destruction of the hair follicle and the development of scar tissue. Underlying cause varies and early detection and aggressive systemic treatment are crucial. The permanent nature of the condition has a significant impact on the psychosocial well-being of patients. Where possible, psychodermatological advice should be offered during the consultation.

moderate to severe psychosocial impact attributed to their hair loss. Younger patients and patients with inactive disease experienced a more severe psychosocial impact. So, patients with cicatricial alopecia should be offered a holistic approach and the psychosocial co-morbidities should be spotted and addressed.

Psychiatric Disorders That Can Present with Hair Loss

Trichotillomania

Trichotillomania (Fig. 22.3) or hair-pulling disorder is characterised by the persistent and excessive pulling of one's own hair, resulting in alopecia and excoriations. Trichotillomania has been classified as an obsessive-compulsive and related disorder, according to the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)*.

Hair pulling can occur in any area of the body where hair grows. The commonest area affected is the scalp, followed by eyelashes and eyebrows. In right-handed patients, the right side is often affected and accordingly the left area for left-handed. Trichotillomania is quite common in early adolescence. Trichotillomania most commonly presents in children and teenagers with the prevalence being higher between 4 and 17 years. Clinically, there can be areas with undetectable thinning of hair, or there may be frank bald patches. Excoriations, erosions and bleeding may be present. In the majority of patients, psychosocial co-morbidities exist. Patients may experience distress, impairment in social, academic and/or relationship functioning.

Although there is a lot of research on trichotillomania by psychiatrists, the majority of the patients present to dermatologists. Therefore, it is really important for dermatologists to be able to recognise and treat such patients holistically.

The diagnosis can be challenging. From a dermatological perspective, shaving a circumscribed area weekly (the "hair growth window") can contribute to diagnosis. Trichoscopy can be also very helpful. Trichoscopic features include black dots, coiled or hook hair, shafts of varying lengths with fraying or split ends (trichoptilosis), flame hair, v-sign, follicular haemorrhages and tulip hair. The absence of exclamation mark hairs and yellow dots are also suggestive of trichotillomania, apart from the macroscopic clinical picture with unilateral and focal distribution. From a

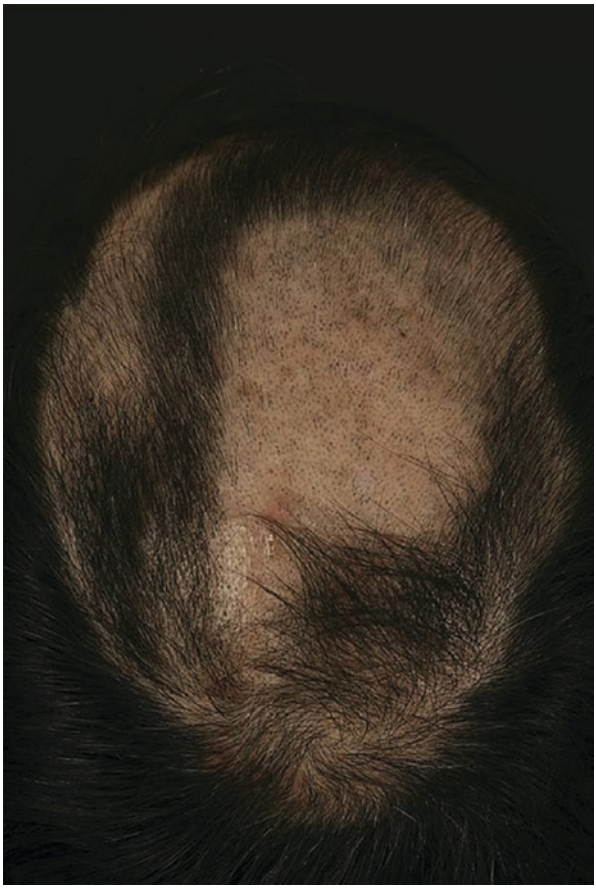

Fig. 22.3 Trichotillosis. Note hair shafts of different lengths. Trichotilloscopy will help

Table 22.6 DSM criteria for trichotillomania

DSM 5 Criteria for Trichotillomania
A. Recurrent pulling out of one's hair resulting in noticeable hair loss.
B. An increasing sense of tension immediately before pulling out the hair or when attempting to resist the behaviour.
C. Pleasure, gratification or relief when pulling out the hair.
D. The disturbance is not better accounted for by another mental disorder and is not due to a general medical condition (e.g. a dermatologic condition).
E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

psychiatric perspective, diagnostic criteria as set by the DSM can be useful (Table 22.6). The majority of patients deny their habit and try to hide it. Parents may struggle to acknowledge and accept the situation. Patients and relatives often feel shame and stigma because of the act of hair pulling.

Table 22.7 Management of trichotillomania

Try to understand *why* this pattern has developed early in the course of the condition.
Offer cognitive-behavioural therapy early.
Offer habit reversal technique.
Treat the hair loss with physical measures where appropriate (weaves/appliances, etc.).
Offer *N*-acetylcysteine (NAC).
If *N*-acetylcysteine (NAC) and behavioural treatment are ineffective, consider SSRIs, if appropriate, and other psychotropic treatment via expert advice.
Refer to a psychodermatology clinic.

In terms of treatment (Table 22.7), there are no large double-blind controlled trials. The mainstay of treatment includes behavioural therapies as well as pharmacologic treatment. Flessner et al. have suggested cognitive-behavioural therapy (CBT) as the most widely used behavioural treatment for trichotillomania compared to Bloch et al. who have suggested that habit reversal training is the most effective intervention for trichotillomania. Other behavioural treatments include self-monitoring, competing reaction training, relaxation training, hypnosis and elimination of a comorbid behaviour.

Pharmacological medication can be effective. Recommendations suggest that *N*-acetylcysteine (NAC) should be considered in all cases of trichotillomania. It has demonstrated efficacy and a favourable adverse effect profile. Selective serotonin reuptake inhibitors (SSRIs) have demonstrated a degree of effectiveness in selected patients and it is a good option if psychiatric co-morbidities exist. Nevertheless, the UK Medicines and Healthcare Products Regulatory Agency (MHRA) has issued an advisory stating that most SSRIs should not be used in patients younger than 18 years old, as the risk:benefit ratio is high. Only child and adult mental health service specialists should prescribe SSRIs in the under 18 age group, so referral to such services will be needed if use of SSRIs is being considered in a patient under age 18. SSRIs may be a safer choice than tricyclic antidepressants (TCAs) with less adverse events.

If hair pulling is associated with a specific activity, such as watching TV or studying, close monitoring by parents or partners is required.

Finally, joining a support group can be beneficial.

Delusional Infestation

Delusional infestation (DI) is defined as the perception held by the patient that they are infested with insects or inanimate particles, despite the contradicting evidence. Patients with DI often present to the hair clinic complaining of their scalp symptoms, such as hearing the mites on their scalp, or mites coming out of the hair root. Many patients bring hair material videos or photographs of the perceived infestation in an attempt to persuade the treating physicians (the specimen sign). In such cases, diagnosis is very easy from clinical history. A referral to a specialist psychodermatology clinic is suggested for a holistic approach to treatment.

Table 22.8 Screening questionnaire for BDD

Cosmetic procedure screening questionnaire (COPS) for Body Dysmorphic Disorder
1. How often do you **deliberately** check your feature(s)? **Not accidentally catch sight of it.** Please include looking at your feature in a mirror or other reflective surfaces like a shop window or looking at it directly or feeling it with your fingers.
2. To what extent do you feel your feature(s) are **currently** ugly, unattractive or "not right"?
3. To what extent does your feature(s) **currently** cause you a lot of distress?
4. How often does your feature(s) **currently** lead you to avoid situations or activities?
5. To what extent does your feature(s) **currently** preoccupy you? That is, you think about it a lot and it is hard to stop thinking about it?
6. If you have a partner, to what extent does your feature(s) currently have an effect on your relationship with an existing partner? (e.g. affectionate feelings, number of arguments, enjoying activities together). If you do not have a partner, to what extent does your feature(s) currently have an effect on dating or developing a relationship?
7. To what extent does your feature(s) currently interfere with your ability to work or study, or your role as a homemaker? (Please rate this even if you are not working or studying: we are interested in your ability to work or study.)
8. To what extent does your feature(s) currently interfere with your social life? (with other people, e.g. parties, pubs, clubs, outings, visits, home entertainment).
9. To what extent do you feel your appearance is the most important aspect of who you are?

Table 22.9 Practical guideline for management of BDD in the dermatology clinic

Practical guideline for management of BDD
1. Screen and assess for BDD.
2. If you believe the patient has BDD following screening and assessment, share the diagnosis with them.
3. Advise referral to a mental health practitioner for a full assessment and further advice.
4. Explain the rationale for referral to a mental health practitioner in terms of the significant risk of dissatisfaction with the procedure, and the likelihood that preoccupation and distress will remain or move to another body area.
5. Avoid arguing with the patient about whether his/her perceived "defect" is real or imagined.
6. Express lots of empathy about his/her distress and preoccupation.
7. Do not refer for a second opinion from another dermatologist; instead, discuss with a mental health practitioner and refer for a psychological or psychiatric assessment.
8. Try and liaise with the patient and mental health professional to allow dermatological procedures to be completed prior to starting psychological therapy, or to postpone them until after psychological therapy or after a trial of SSRI medication.
9. Consider co-working with a mental health professional, especially if there is damage from skin picking or if it helps to increase engagement.

Body Dysmorphic Disorder

Body dysmorphic disorder (BDD) or body dysmorphia is considered more fully elsewhere in this volume. Patients with BDD often focus on the appearance of their hair. They may believe that they are shedding more hair and alopecia is inevitable. A diagnosis can be challenging. It is based on clinical history and screening questionnaires can provide additional help (Table 22.8).

Treatment can be challenging as the patients may lack insight and can be difficult to engage. In Table 22.9, there is a practical guideline approach for the management

Fig. 22.4 Scaling from scalp disease (e.g. psoriasis) can be very troubling, and is easily underestimated, for men and women. Scalp scaling on black clothes is very obvious

of BDD in the dermatology clinic. If concerned, you can refer to a psychodermatology clinic for a holistic approach.

Scalp Disease

Scalp disease (Fig. 22.4) can lead to scaling and redness of the scalp which in itself can be very debilitating. Underestimating the impact of scalp disease on hair styles/colour and choice of clothing is very common amongst health care professionals, and must be avoided. As usual in the management of patients with psychodermatological disease, it is important to manage the scalp disease (e.g. psoriasis, atopic dermatitis) at the same time as managing the psychosocial co-morbidities.

Appliances/Wigs, Camouflage and Support Groups

Wigs or hairpieces are commonly used to camouflage alopecia areas, mainly by women. Patients who choose to use a wig for hair loss seem to have a better quality of life and self-esteem, with less prevalence of depression and anxiety. Wigs are

Practice Points

- Hair loss is accompanied by significant psychosocial co-morbidities.
- Women and young patients are generally more affected, without excluding other categories of patients.
- It is crucial and it should be part of the routine clinical practice to screen patients with hair loss for depression, anxiety and body dysmorphic disorder.
- Patients should get a holistic approach to their hair problem, and not only dermatology treatments
- Camouflage can be extremely beneficial for a subset of patients.
- If unsure, offer to the patient a referral to a psychodermatology clinic.

very common among patients with AA, AGA and AE. Other options may include keratin filaments, tattoo and more.

Psychological support by experts as well as joining support groups can be beneficial.

Support groups include:

- National Alopecia Areata Foundation (http://www.naaf.org)
- Alopecia UK (http://www.alopeciaonline.org.uk)
- Cicatricial Alopecia Research

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