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AN OVERVIEW OF ALOPECIAS

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ABSTRACT

Alopecia is the absence or loss of hair in an area where it is expected to be present. Alopecia can be localized or diffuse, temporary or permanent and affects both sexes and all age groups. Hair loss is a topic of enormous public interest, and understanding the pathophysiology and treatment of the various alopecias is likely to have a major impact on patients' lives. This condition is a sign or symptom arising from a heterogeneous etiology and is broadly classified as most common, most common, and scarred (scarred). Patients may present with significant difficulties that reduce their quality of life. A detailed history, physical examination, and targeted evaluation are necessary to determine the underlying cause, which will lead to a decision on the most appropriate treatment to achieve the best results. This activity summarizes the assessment and treatment of the most common types of alopecia and highlights the role of the interprofessional team in improving the care of patients with this condition.

KEYWORDS: Alopecia areata, camouflage, etiopathogenesis, intralesional corticosteroids, treatment, non-concerning.

INTRODUCTION

Alopecia is the absence or loss of hair in an area where it is expected to be present. This condition can be localized or diffuse, temporary or permanent and affects both sexes and all age groups. Alopecia is a sign or symptom arising from a heterogeneous etiology and is broadly classified as the most common, the most common, and scarring (scarring). Patients may present with significant difficulties that reduce their quality of life. A detailed history, physical examination, and targeted evaluation are necessary to determine the underlying

cause, which will guide the decision-making process for the most appropriate treatment for the best results. It should be noted that the nomenclature in the literature usually uses scars rather than scars and differentiates between scarring and scarring. For simplicity, we will use nonscarring and scarring, except when scarring is part of the named disorder. This activity focuses on the most common types of alopecia areata and scarring.[1]

Hair itself has few physical functions. These include protection against the effects of UV radiation, suppression of heat loss and tactile sensation. Different hair types consist of end, middle and vellus hair. Terminal hairs correspond to the classic perception of hair and are the hairs on the crown, armpits, pubic area, beard, eyebrows and eyelashes. They are long, pigmented and thick. Vellus hairs, on the other hand, are short and generally lack pigmentation. These cover the body. Intermediate hair has characteristics that fall in the middle of the spectrum between terminal and vellus hair. Hair loss can be irreversible, causing skin atrophy and follicular openings to disappear. Such cases are categorized as scarring (or scarring, permanent) alopecia. Reversible hair loss is no scarring.[2] Humans are usually born with approximately 5 million follicles, and no new follicles are expected to grow after birth. The hair follicle cycle, which begins in utero, consists of three phases: anagen, telogen, and catagen. The anagen phase is the longest, lasting an average of 3 years and varying from 1 to 6 years depending on body location. It is also the most prevalent phase, with 90% to 95% of all hairs existing in the anagen phase at any given time. Anagen represents a period of growth involving extensive mitotic activity, so a longer anagen phase means longer hair (eg scalp as opposed to eyebrows, eyelashes or pubic hair). Telogen is a quiescent period of organ inactivity, lasting 2 to 3 months on the scalp or longer elsewhere. Club hairs fall out and new anagen hairs grow in their place to resume the cycle.[3]

There are 8 different types of alopecia areata which are as follows

Table 1: Different types of alopecia areata.

Patchy Alopecia Areata	**Characterized by the formation of one or more circular or oval-shaped bald patches, it is the most common type.**
Alopecia Totalis	Refers to the complete loss of hair on the scalp.
Alopecia Universalis	Complete hair loss occurs on the scalp, face, and body.
Alopecia Barbae	Patchy or diffuse (rarely) hair loss in the beard region.
Alopecia Incognita	Diffuse hair loss accompanied by the formation of yellow dots (sebum or keratinocytes) and miniaturized hair.
Ophiasis	Comes from the Greek word for “snake” because of its wave-like appearance. Occurs at the circumference of the head (occipital and temporal regions).

Sisaipho (Inverse Ophiasis)	Loss of hair on the center of the scalp. Temporal and occipital regions are spared.
Marie Antoinette Syndrome	Alluding to the French Queen whose hair turned white before the last walk to the guillotine.

ETIOLOGY

• Alopecia areata

Hair follicles are preserved in non-scarring alopecia; therefore hair loss is potentially reversible and hair regrowth is possible. Scarring alopecias include androgenetic alopecia, alopecia areata, telogen effluvium, anagen effluvium, traction alopecia, trichotillomania, and alopecia syphilitica, among others.[4]

Androgenetic alopecia is referred to as androgenetic alopecia, hereditary alopecia, male pattern baldness, female pattern baldness, and female pattern hair loss to name a few. To better understand this condition, newer nomenclature is moving towards male pattern hair loss and female pattern hair loss. Patterned hair loss is usually slowly progressive and is the most common type of alopecia in men, women and teenagers. Men tend to lose hair in the vertex, bitemporal and mid-frontal areas of the scalp, while women tend to lose hair in the central part of the scalp with minimal involvement of the frontal hairline.[5]

Alopecia areata is a chronic immune-mediated disease that commonly manifests as acute, irregular scalp hair loss, affecting both sexes and children, adolescents, and adults. Rarely, patients experience total loss of hair on the head (alopecia areata totalis) or hair loss all over the body (alopecia areata universalis). Patients may experience a single episode or a pattern of remission and relapse.[6]

Telogen effluvium is a non-inflammatory acute or chronic alopecia usually affecting the entire scalp in children, adolescents and adults of both sexes. Disruption of the transition from the anagen phase to the telogen phase can be caused by psychological stress, chronic disease, pregnancy or the postpartum period, malnutrition, severe infection, endocrine disorders, metabolic disorders, surgery, and drugs such as anticonvulsants, antidepressants, anticoagulants, oral contraceptive pills, and retinoids . Hair loss occurs approximately 3 months after the triggering event, usually resolves on its own, and lasts approximately 6 months.[7]

• Scarring alopecia

Hair follicles are irreversibly destroyed in alopecia areata, resulting in permanent hair loss. Scarring alopecias are classified as primary and secondary. The primary classes of alopecia areata are lymphocytic, neutrophilic, and mixed. Lymphocytic primary scarring alopecias include frontal fibrosing alopecia (FFA), lichen planopilaris (LPP), central centrifugal scarring alopecia, discoid lupus erythematosus (the most common type of chronic cutaneous lupus erythematosus), Brocq's pseudopelada, alopecia spinofolosaular, and kelopecial fly. Neutrophilic primary scarring alopecias are dissecting cellulitis and folliculitis decalvans, and mixed primary scarring alopecias are acne keloidalis nuchae, acne necrotica, and erosive pustular dermatosis of the scalp. The 2 most common scarring alopecias are FFA and LPP.[8]

FFA is characterized by a slowly progressive symmetrical strip of frontal hair alopecia and primarily affects postmenopausal women. About 25% of patients report itching and pain in the affected area; otherwise, the condition is asymptomatic. FFA is often considered a variant of LPP based on histological similarities.[9]

LPP most commonly affects women and initially presents with perifollicular erythema and follicular hyperkeratosis that evolves into simple or multifocal patches of patchy alopecia on the scalp. Hair loss is usually limited to the scalp, but body hair can sometimes be affected. Patients may report itching, burning, or tenderness in the affected areas.[10]

EPIDEMIOLOGY

Alopecia areata is an immune-mediated condition that results in the most scarring alopecia of the scalp and other hairy areas of the body. It affects up to 2% of the world's population. It can affect all ages, but the prevalence appears to be higher in children than in adults (1.92%, 1.47%). A higher incidence has been reported in women than in men, particularly in patients with late-onset disease, defined as age greater than 50 years.[11]

Frequency of alopecia areata

Androgenetic alopecia 37.7%

Alopecia areata 18.2%

Telogen effluvium 11.3%

Frequency of alopecia areata

Frontal fibrosing alopecia 10.8%

Lichen planopilaris 7.6%

Folliculitis decalvans 2.8%.

The frequency of the other mentioned types of alopecia is less than 2%. The article also provides "differences in frequency of hair disorders" for gender, median age range by gender and continent.[12]

HISTORY AND PHYSICS

A thorough history will likely include the following

whether there is visible hairlessness (alopecia) or an increased amount of hair falling out per day (effluvium)

Age at onset of hair loss

Time course

Method

Distribution, such as focal (patchy), patterned, or diffuse

Accompanying symptoms

Gynecological and obstetric history for women

Dietary history

Family history of hair loss

Recent or current medications.

Recent environmental exposures and surgical history may also be part of the relevant history. A complete skin examination should be performed, including the scalp, face and nails. When examining the scalp, position the patient in a chair rather than on an examination table and use good lighting and possibly magnification to ensure proper inspection.[13] Assess for erythema, papules, scaling, pustules, crusting, and nail discoloration and pitting. Dermoscopy is essential for visualization of epidermal and subepidermal structures undetectable with the naked eye.

A hair pull test can help evaluate patients with excessive hair loss. Grab a group of approximately 40 to 60 hairs, apply a firm but gentle pull away from the scalp and repeat in 3 to 4 areas. Traditionally, more than 10% of the hairs (4 to 6) pulled from the scalp test positive. The more recent recommended threshold for a positive test is more than 3 hairs per 60 hairs removed.[14]

RISK FACTORS FOR SEVERE AREAS OF ALOPECIA

Gender (male/female): The most common diseases associated with AA in our study were anxiety, dermatitis, hypothyroidism, hyperlipidemia, and vitamin D deficiency, in that order.

In addition, the most common diseases were hypothyroidism and hyperlipidemia in women and men. The incidence of allergic rhinitis, anxiety, depression, diabetes, hypertension, and hypothyroidism was influenced by the age of the patients," Hamidpour et al. "Gender, age, and severity of the disorder can influence associated disorders. Thyroid function tests and psychiatric support are recommended in patients with AA.[15]

Nail change (present/absent): Nail changes are a common feature of AA with an average prevalence of 30% and can cause significant disfigurement and loss of function. Pitting and trachyonychia were by far the most common manifestations of AA with a mean prevalence of 20 and 8%, respectively.

Thyroid disease (present/absent): Conditions such as hyperthyroidism, hypothyroidism, and drug-induced hypothyroidism are associated with widespread hair loss. Approximately 50% of individuals with hyperthyroidism and 33% with hypothyroidism experience hair loss.[16]

Autoimmune disease (present/absent): Many of the genes they found are important for the functioning of the immune system. People with certain autoimmune conditions, such as psoriasis, thyroid disease, or vitiligo, are more likely to develop alopecia areata, as are people with allergic conditions such as hay fever.[17]

TREATMENT / MANAGEMENT

Psychosocial support should be considered in the treatment and management of all patients with alopecia.

• Alopecia areata

Treatment and management of androgenetic alopecia (male and female hair loss) is aimed at stopping hair loss, preventing or slowing further thinning and hair loss, and promoting hair regrowth. Topical minoxidil and oral finasteride are the first-line treatments for men, and topical minoxidil is the first-line treatment for women. There are many alternatives, including other pharmacological treatments, platelet-rich plasma, low-level laser therapy, microneedling adjunctive therapy, and autologous hair transplants. Treatment of comorbidities such as hyperandrogenism and malnutrition may help maintain hair growth.[18]

Therapies for alopecia areata "are aimed at immunosuppression or immunomodulation of disease activity." Alopecia Areata Consensus of Experts (ACE) Study: The results of an international expert opinion on the treatment of alopecia areata were published in 2020.

Topical corticosteroids are recommended as first-line therapy for the treatment of limited patches of alopecia areata and adjunctive therapy in more severe forms. Intralesional corticosteroid injections are also the first-line recommendation for limited patchy alopecia areata, alone or in combination with topical corticosteroids. A preferred corticosteroid is triamcinolone acetonide. Oral corticosteroids can be used as first-line treatment for moderate to severe disease (SALT score > 30%) in adults, alone or in combination with topical corticosteroids. Other therapeutic options include local sensitization with diphenylcyclopropenone (DPCP) or anthralin and methotrexate with or without oral corticosteroids.[19]

• Scarring alopecia

Due to their rarity, there is limited evidence of the effectiveness of therapeutic options for primary cicatricial alopecia. The goal of treatment for FFA and LPP is to stop or delay hair loss and progression in the scarred alopecia area (s) and provide symptom relief. There are no specific guidelines for the treatment and management of FFA and LPP; however, class III or IV topical corticosteroids with or without intralesional triamcinolone acetonide injections may be considered. Other pharmacotherapeutic treatment options are suggested, and psychological support and masking techniques are recommended.[20]

DIFFERENTIAL DIAGNOSIS

Androgenetic alopecia (male and female hair loss): alopecia areata, telogen effluvium, traction alopecia, trichotillomania, FFA, LPP and central centrifugal scarring alopecia.

Alopecia areata: tinea capitis, trichotillomania and temporal triangular alopecia for patchy alopecia areata and female pattern hair loss, telogen effluvium and drug-induced alopecia for diffuse forms of alopecia areata.

Telogen effluvium: androgenetic alopecia (male and female pattern of hair loss) and diffuse forms of alopecia areata.

FFA and LPP: the main histological differential diagnoses are chronic cutaneous lupus erythematosus, central centrifugal scarring alopecia, and folliculitis decalvans.[21]

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