Case Report :

Alopecia areata incognito misdiagnosed as androgenetic alopecia– A Case Report

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Abstract

Alopecia areata is non-scarring alopecia that is characterized classically by rapid onset hair loss. It is a hair-specific autoimmune disease characterized by dense lymphocytic infiltrate around the hair follicle. The average lifetime risk of developing this disease is approximately 1.7%. The causative and triggering factors for alopecia areata are not clear yet. Notable variations in the clinical presentation of alopecia areata have been observed, ranging from well-demarcated hair loss patches to a complete absence of scalp hair or even total body hair. Alopecia areata incognito is an uncommon variant of alopecia areata. It is characterized by acute diffuse shedding of telogen hairs in the absence of typical alopecic patches. The prevalence of alopecia areata incognito is unknown, but the disease is more prevalent in females. Clinically it can resemble telogen effluvium or androgenetic alopecia, The presence of numerous yellow dots and short regrowing hairs are the main dermoscopic features of alopecia areata incognito. It requires high clinical suspicion and histopathological correlation is essential. The present case is a fifty-four years old Saudi female that has been diagnosed and treated as female pattern androgenetic alopecia for the past eight years with no improvement. Attended our clinic, a comprehensive medical history and physical examination were done, followed by scalp biopsy to diagnose her condition and exclude other causes of diffuse alopecia. The histopathological report revealed alopecia areata histopathology. A clinical correlation of alopecia areata incognito was made and treated accordingly.

Keywords:
Alopecia areata incognito, Saudi female with hair loss, Diffuse alopecia, Trichoscopy.

Introduction:

Alopecia areata (AA) is non-cicatricial alopecia characterized by hair loss with no clinical inflammation of the scalp. It is one of the most common forms of hair loss, and it accounts for 25% of all cases of alopecia[1]. The prevalence of AA among the general population was estimated to be 0.1-0.2%, and the average lifetime risk of developing this disease is approximately 1.7%[2]. The diagnosis of alopecia is performed clinically by examination and dermoscopy, also known as trichoscopy, which is useful in diagnosing of doubtful cases. It is recommended to do a scalp biopsy if the diagnosis was not clear[3].

Other conditions can mimic AA, such as Telogen effluvium, Androgenetic alopecia, Congenital triangular alopecia, Pressure alopecia, and Traction alopecia3. Alopecia areata incognita/ incognito (AAI) is an uncommon variant of alopecia areata, which was firstly described by Rebora, and is characterized by a diffuse shedding of telogen hair across the scalp leading to thinning of the whole scalp with no bald patches[4].

Review of literature

Alopecia areata incognita/ incognito (AAI), also known as diffuse alopecia areata, is a distinctive form of alopecia areata described mainly in young females, especially those between 20-40 years old, with a prevalence of 86%[5]. AAI is characterized by widespread thinning of the scalp and lacks the typical patches of AA[6-7]; however, few AAI patients might develop typical patches of AA concomitantly or subsequently. The pathophysiology of AAI is unknown[7].

Trichoscopy is an increasingly used bedside test to facilitate the diagnosis; nonetheless, histological examination is the gold standard test to confirm it and differentiate between AAI and other mimicker conditions[7]. Yellow dots and short regrowing hairs are constant signs in dermoscopy of AAI, which support the diagnosis; the yellow dots in AAI affect 70% of follicles, and it has been characterized by its uniform distribution5. There are several histopathological features of AAI, 91.3% of cases show dilated infundibular openings plugged with keratin and sebum, 50% has follicular inflammatory infiltrate, a non-cicatricial pattern with a preserved number of follicular units, a decreased number of terminal follicles, increased number of telogen follicles and vellus follicles[5,8].

The treatment of AAI involves using systemic and/ or topical steroids, which showed good response in most cases5,8.

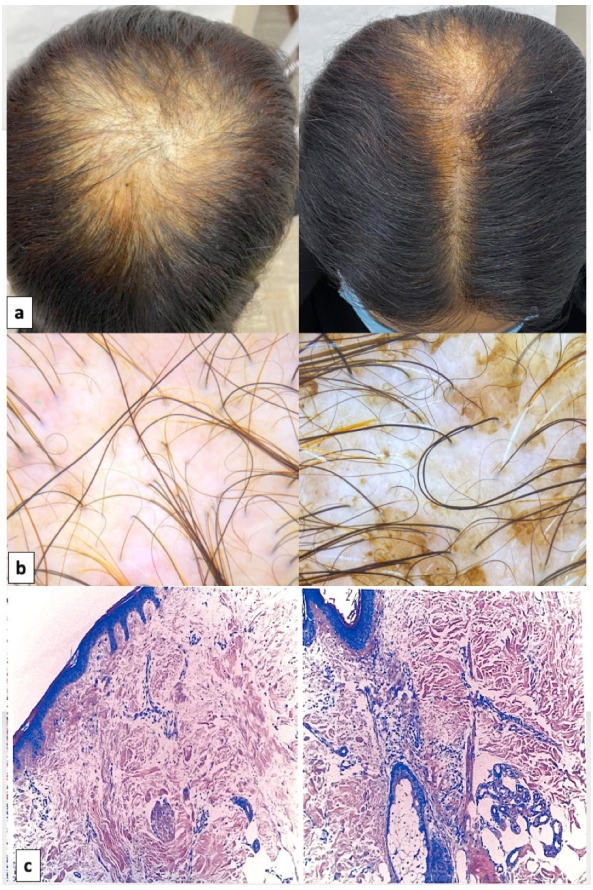
Case presentation

A 54-years old Saudi housewife presented

to our dermatology clinic suffering progressive thinning of the vertex area over eight years. She has been seen by many physicians and was treated as female patterned hair loss with inconsistent use of topical minoxidil. The patient did not notice any significant improvement, and she tried herbal treatments such as Henna, hoping to get thicker hair and dye the bursting gray hair. The patient is medically free, taking no medication, and having an unremarkable surgical history. She reported no scalp symptoms such as itching, scales, or pain. She had normal nails and mucous membranes.

Examination and diagnosis

Upon examination, a diffuse thin area over the vertex with variable hair length mainly, vellus and short, numerous visible follicular openings over a background of orange stain on the scalp, which was from the Henna dye (figure 1a). On trichoscopy, variable hair thickness, numerous short vellus hairs, tapering hair (exclamation signs), and yellow dots was seen (figure 1b). A 4-mm scalp biopsy for Hematoxylin and Eosin (H&E) was taken from the vertex to confirm the diagnosis and roll out other diffuse alopecia causes. The results came back consistent with alopecia areata showing peritubular lymphoid cell infiltrate, all hair follicles were in telogen phase and some anagen-like nanogen hair follicles with no central hair shaft (figure 1c).



Treatment

A signed procedural and photography consent was obtained prior to the treatment. Intralesional triamcinolone acetonide 5mg/cc with minoxidil 5% were initiated as the first step in the management. After two months, mild improvement occurred; a 10mg/cc of intralesional triamcinolone acetonide and topical bimatoprost 0.03% nightly solution was added to the regimen. After six months patient showed apparent improvement on both clinical and trichoscopic scales.

Discussion

Alopecia Areata (AA) is non-cicatricial form of acute hair loss, it is not associated with clinical inflammation[3]. Alopecia areata incognito (AAI) is a rare variant of alopecia areata; it is more common among females[4].

In the present case, a 54-years old female was suffering chronic diffuse hair thinning of the crown area over eight years treated as female pattern hair loss showed poor response to topical minoxidil; she did not develop any inflammatory signs in the scalp. These findings raise suspicion of AA. However, AA may involve nail changes in 29% of adults[3] and commonly affects young individuals, whereas our patient had neither nail nor mucosal membrane changes. AAI is more commonly affects the older age group the contrary to AA[9]. Her inadequate response to the treatment, diffuse distribution, and dermoscopic features raised the suspicion to challenge the diagnosis.

Currently, it has been shown how Trichoscopy could improve diagnostic skills in hair disorders. Features for AA involve black and yellow dots, dystrophic hair, short vellus hairs, and tapering hair. The combination of these features helps detect challenging cases such as AAI[3]. In AAI cases, the dystrophic broken hair, a typical feature of acute AA, is usually absent8. Our patients lack any features of dystrophic broken hairs, which implying more toward AAI. However, a biopsy was taken to confirm the diagnosis.

The treatment of AA is a multistep approach. Numerous therapeutic options are available, and several can be utilized in combination. It depends on the type, severity of AA, age of the patient, and current medical condition; corticosteroids are the mainstay therapy for AA[3]. Intralesional corticosteroids have been used since 1958 to treat AA, and it is the first choice for the patchy AA in adults with a response rate above 65% [10]. Minoxidil is a medication used for stimulating the proliferation and enhances hair regrowth; it is used in combination with corticosteroids, has a synergistic effect, and improves the results[11]. Therefore, our patient was initiated on the first line of treatment ladder for alopecia areata, with a 4–6 week follow-up to evaluate and modify her response as there is no clear treatment guideline for alopecia Areata incognito[3,12].

Conclusion

Alopecia Areata incognito is an uncommon variation of Alopecia areata, and physicians need to consider it in their differential diagnosis of unresponsive diffuse form of scalp alopecia.

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