

Ant-induced alopecia; A case report

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Abstract

Localized hair loss is a common complaint among clients of dermatologists. A rare form of that is caused by a certain ant and its diagnosis can be out of the dermatologist's mind. Here, we report a case of barber ant-induced alopecia in a young man.

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Localized hair loss is a common complaint among clients of dermatologists. A rare form of that is caused by a certain ant and its diagnosis can be out of the dermatologist's mind. Here, we report a case of barber ant-induced alopecia in a young man.

Keywords : Alopecia, Ant.

Key Clinical Message:

Ant-induced alopecia is a rare cause of acute, localized hair loss. Considering the diagnosis of ant induced alopecia may eliminate unnecessary treatments.

Introduction :

Localized hair loss may include various causes. Alopecia areata, trichotillomania, and tinea capitis are some diseases that can be the causes of localized hair loss. We can differentiate them by using clinical and histological examinations. Ant induced hair loss is one of the uncommon causes of sudden and localized hair loss. Pheidole is the second largest group of ants that can be found in most parts of the world. They are reddish-brown with a large head plus strong jaws causing hair loss (1). We suggest considering the diagnosis of ant induced alopecia in order to diagnose the differential localized hair loss.

Case :

An otherwise healthy 34-year-old man presented to the dermatology clinic with the complaint of sudden hair loss since yesterday. The patient described that he has noticed shed hairs and some ants on his pillow after he woke up. He had no pruritus or burning sensation. On examination, an alopecic patch measuring about 4 in 3 centimeters was observed on the vertex zone which had approximately equal short hairs, without erythema, scaling and exclamation mark hairs (figure 1). The patient brought several killed ants with himself. Microscopic evaluation of ant showed reddish-brown ant with strong jaws that seemed to belong to the pheidole species (figure 2). Ant-induced alopecia was diagnosed and we just assured him.

Discussion :

The first reported case of ant induced hair loss was in 1999 from Iran. Until now, several cases have been reported from Iran and other countries. The cause of this disease is ants belong to Pheidole species, mainly Pheidole Pallidula (barber ant) (2). Pheidole species are the second group of ants which can be found abundantly in many parts of the world, but they are more expansive in tropical areas. One caste of them is the worker which is dimorphic and has two classifications: Major and minor groups. The major group is bigger than the minor one, and their size is about 6 millimeters (mm) and 4 mm respectively. The soldier ants (major group) have two pairs of denticles also a middle bump on the front of their big heads (3). They are responsible for storing food and protecting the nest (4). In tropical areas, ants often find food at night, while in the cooler areas they do it at both daytime and night (1). It is still ambiguous whether the hair loss is related to the ants' mechanical motility or they have also chemical secretions that can play a role in this process (1, 5). It manifests as the area of hair loss in linear or patchy form, without erythema, pruritus, scaling, and inflammation (2). However, erythema (6, 7) and pruritus probably exist in some cases (1, 6). Localized and sudden hair loss can have different reasons, including alopecia areata, trichotillomania, tinea capitis, and lupus that suggested to be excluded before ant induced alopecia is diagnosed. To help the diagnosis, we should consider some evidence such as the ants which exist around the sleeping site, sudden shed hairs with equal length, and the absence of any signs of inflammation (1). Acute alopecia areata usually manifests as the following statements: sudden symptomless one or multifocal patches of hair loss with positive hair pull test along with cadaverized and exclamation mark hairs and lack of inflammation signs (8). Tinea capitis is more common in children and rarely happens in adults. Clinical manifestation varies from scaling without inflammation to kerion, abscess of subcutaneous tissue with alopecia, based on the causative organism (9). Trichotillomania is characterized by a patch of hair loss with different sizes of hair. Also, hair loss following honey bee stings and tick bites have been reported, however; in tick bites, inflammatory reactions to bites cause hair loss and hair growth occurs after subsiding the inflammation(2).

Conclusion :

We can recognize this kind of alopecia by examining and questioning. It does not need any treatment because hairs will regrow without any intervention. We find out that ant induced alopecia can simulate the other causes of localized alopecia also must be aware of this factor as a cause of alopecia, especially in tropical and subtropical areas.

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Conflict of interests

None declared.

Authors' contributions:

M.M.; Designed, interpreted the patient data and co-wrote the paper. M.P.; Interpreted the patient data, follow upped the patient and co-wrote the paper. V.M.; Designed and interpreted the patient data. A.A.; Supervised the research and revised the manuscript. All authors read and approved the final manuscript.

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Figure1. A circumscribed hair loss patch on the vertex with approximately equal hairs.



Figure2. A reddish-brown ant.

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