

Case report: Acute hair matting in a Libyan girl from the outskirts

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Introduction

Acute hair matting (AHM) is an acquired encountered condition in the medical setting, rarely seen, presenting as an acute sudden solid mass of irreversible matting of scalp hair on the vertex in otherwise healthy individuals due to vigorous shampooing or neglect of hair or parasitic infestations. Subsequently, other factors such as shampoos including herbs, conditioners are claimed to be the culprit as well (Anisha S, 2016). It's also called as Plica neuropathica. The condition has irregular hair twists of severely entangled hairs abruptly formed on the scalp (Palwade PK, and Malik AA, 2008).

It was previously believed to be a disease peculiar to Poles and was called bird's nest hair (plica polonica) according to Anisha S, et al, 2016 findings.

Plica neuropathica (polonica) presents as a compact mass of scalp hair with irregular twists and irreversibly entangled plaits which are stiff to hard, tightly packed mass of keratin cemented together with dirt and exudates (Ghodake NB, Singh N, Thappa DM. 2013).

Plica neuropathica was first described by Le Page in 1884, and was thought to be due to hysteria (Gupta L, et al, 2015). Nonetheless, the term "plica polonica" was very ubiquitous in Poland in the 19th century (Polish plait), where the polish tradition of wearing tight fur caps and not washing their hair contributed to a muddy, filthy and malodorous compact mass over the head, frequently associated with lice infection and boggy inflammation in the scalp.

On the other hand, other stipulations for the similar pathology embrace felting, bird's-nest hair and plica polonica, which refer to acute matting of hair resulting from gross neglect (Kwintar J. and Weinstein M., 2006).

Case Report

A 16-year-old otherwise healthy, single Libyan girl from the outskirts of Libya presented with a foul-smelling boggy mass of hair on her scalp since a few months, which could not be combed for five days. The patient, who wears a head covering for religious reasons had a distinctive big head due to hair matting, and had not shampooed her hair in 6 days. She indicated that routinely she washed her hair once weekly.

Physical examination; a stiff protuberant solid mass of matted hair was revealed under the head scarf. The mass was found to be made of hair entangled into each other with the presence of a lot of crusting and foul smell and oozing areas on the scalp, with diffuse non cicatricial hair loss over the rest of the scalp. The hair mass enclosed almost 70% of the area on scalp, involving vertex, temple and occiput, mimicking a "bird's nest". The mass was fixed and difficult to move around and hairs were matted together with crusting and a foul smell. There was presence of plenty of louse and nits with swelling over the occipital lymph nodes. She declined having photos taken of her condition.

Hair-pull test was not easy to perform due to extensive hair matting. Trichoscopic examination was not performed due to thick matted hairs and she declined such examination.

There was associated pruritus and pain for her condition.

There were no other dermatological findings. There was no history of skin or hair disease in past.

There was no history of use of any chemical treatment for her hair such as streaking or straightening of hair.

Figure 1: Plica polonica

There was no history of fever, change of soap, shampoo, or oil for hair care.

There was no history of mental disorders, or emotionally and physically neglect or daily intake of medications.

There was no reported history of similar affection in her family.

Laboratory testing was not requested.

The exact pathology of AHM is still not understood, and multi factorial speculation can be proposed. For example, extreme rubbing and firmness in a liquid medium are thought to cause the assemblage of adjacent hair fibers, also poor hair care and poor hygiene can contribute to this condition.

However, some cases had been blamed after regular use of malicious shampoos and following irritant contact dermatitis of the scalp. The main culprit is neglected hair cleanliness and care, which may be associated with scalp inflammation and hair infestations with lice. Moreover, some specific hair habits, like applying sticky materials over the hair or using dreadlocks, entwined masses of matted ropes of long hair, which can be misinterpreted as AHM (Gupta L, et al, 2015).

Trichoscopy can be applied as it is a noninvasive and practical diagnostic tool which can help to better understand the hair and scalp conditions and to spot any explicit features in the hair shafts (Gupta L, et al, 2015).

Treatment of AHM mandates cutting the matted hair, and manual separation using organic solvent can be tried in early cases. Prevention of AHM includes regular use of soft hair cleansers and deep hair conditioners, and gentle combing to avoid entangling of hair fibers (Gupta L, et al, 2015).

This girl was prescribed overnight application of 1% permethrin lotion, a broad-spectrum oral antibiotic and advised a thorough shampoo wash and to shave off the

entire scalp where the matted hair was in order to alleviate her scalp condition.

In some cultures, like India, plica neuropathica, also called plica polonica, felting or bird's nest hair was thought to be a nerve force and some consider it as a "visitation from God" and is seemingly quite common among Hindu ascetics (sadhus) in India, where long hair is not trimmed or combed and proper hair care is not observed, and thus hair entangles together leading to twisted masses of matted ropes of hair known as dreadlocks (Ghodake NB, Singh N, Thappa DM 2013).

Felting is a physical observable fact well known in the textile and wool industry, which causes gathering of adjacent fibers when exposed to friction and compression in a liquid medium. The exact etiology of plica neuropathica (polonica) is not clear. But it can be attributed to longitudinal splitting or weathering of hair shaft due to vigorous friction and frequent use of harsh shampoos and harsh cleansers; also poor hygiene and/or due to keeping long hair with poor hair care or its neglect resulting in scalp hair infestations and scalp pyoderma. (Ghodake NB, Singh N, Thappa DM 2013).

It is also probable that sweating associated with matting condition had moistened the hair enough to allow the head covering to serve as a frictional force (Kwinter J. and Weinstein M. 2006).

Some other predisposing factors suggested are kinky hair and febrile conditions. Also such conditions were found to be more frequent among psychologically disturbed women due to the repeated manipulation of the hair (Anisha S, et al, 2016).

Treatment of this condition is rather difficult, and the only alternative is to cut the matted hair all together so the scalp can breathe. The treatment of plica neuropathica involves cutting the matted hair. In the early cases, manual partition by organic solvents can be tried. Prevention includes hair care measures such as regular cleaning of the hair with mild cleansers or shampoos, placid oiling and combing to

avoid entangling, and habitual hair trimming. Piling hair over the vertex while washing and backcombing should be abandoned (Anisha S, et al, 2016).

Plica neuropathica in general affects healthy persons. The scalp hair is frequently affected. Additionally the ill efforts by the patient to comb the disorderly hair escort to electrostatic attraction and increase the chances of matting of the long and old hair. (Anisha S, et al, 2016).

Shaving of the matted hair is the most feasible option accessible. Plica, once developed needs complete hair removal. However, it can still be prevented from developing by regular gentle hair care and habitual washing habits. For instance, adopting simple measures as: regular cleaning of hair with mild cleansers or shampoos, with gentle oiling to avoid entangling, also regular long hair trimming, refraining from hair piling over vertex while washing and backcombing, and avoid rotatory rubbing of hair and lastly long hair should be given a backwash or be washed in the sink.

Matting of hair is not truly a hair disorder; however it is rather a reaction resulting from the interplay of great motley of factors.

My case had plica polonica probably due to poor hair hygiene and care practices and thus I emphasize the importance of good hair care practices to avoid such dreadful hair conditions.

To the best of my knowledge, it is the only one encountered case in the medical setting of the matted hair presenting for medical help from the outskirts of Libya.

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