

Plica neuropathica: Different etiologies in two cases

Sir,

Plica neuropathica is a rare condition involving complete matting of scalp hair in an otherwise healthy individual, typically following vigorous shampooing or neglect of hair.^[1] Other terms for the same pathology include plica polonica from its prevalence in Poland in the early part of 19th century, felting, and bird's nest hair. The condition is sparsely reported in literature but is quite common in Hindu religious persons (*sadhus*) in our country, where hair are not trimmed and proper hair care is not observed.^[2] Recently we came across 2 cases of plica neuropathica as a result of 2 completely different etiologies.

A 55-year-old otherwise healthy, married woman presented with a foul-smelling mass of hair on scalp since 6 months. On examination, the mass was found to be made of hair entangled into each other with presence of lot of crusting and foul smell. One could notice sparseness of hair on frontal and the temporal areas. The hair mass covered almost 70% of the area on scalp, involving vertex and occiput. The mass was fixed and hairs were matted together with crusting and foul smell. Using a pair of scissors, the mass was separated from scalp, and it came out as a tupe with lot of crusting at the base. She had a sign of relief on her face as the mass was removed.

Light microscopy of hair revealed normal hair follicles with bending and twisting of hair strands. In between the hair follicles, there was presence of plenty of louse and nits. She was prescribed overnight application of 1% permethrin lotion, a broad-spectrum oral antibiotic and advised a thorough shampoo wash. After a week, her scalp was clear of all the crusting and foul smell.

The second case is that of a 45-year-old married woman with alopecia areata. She had applied *Croton tiglium* (*jamalgota*) seed, a herbal raw product, as a topical application on scalp.

This resulted in severe irritant contact dermatitis. When she presented to us, multiple patches of alopecia in frontal, occipital, and parietal scalp with crusting could be seen. Hairs were matted together but some of them were still slightly separable. She was put on oral prednisolone 0.5 mg/kg/d and was advised to take a head wash and try to separate hair strands using coconut hair oil. On the third day, irritant reaction had subsided almost completely, but she could not separate hair strands; rather hair were entangled with one another to form a complete hair mass. The mass was pulling surrounding hair into it causing headache. Again the mass was cut with a pair of scissors, and she could comfortably go home.

In 1884, when Le Page^[3] first described a case of acute matting of scalp hair, he referred to it as plica neuropathica as he believed it stemmed from hysterical tendencies.

The pathogenesis of matting of hair is not exactly understood. However, certain major mechanical factors have been implicated:

1. A physical phenomenon of felting, well known in wool and textile industries, which creates compacting of contiguous fibers exposed to friction and compression in liquid medium.
2. Electrostatic attraction between hairs.
3. Viscous fluid welding with formation of viscous lipotropic crystal phases.
4. Other minor contributory factors in pathogenesis of this condition are long hair, longitudinal splitting and weathering of hair, vigorous rubbing of hair in a rotatory manner, and improper care resulting in severe infestations with resultant exudates causing matting of hair.^[4,5]

Treatment of this condition is rather difficult. It has been suggested that the early stages are probably reversible with application of organic solvents, and rarely manual separation may be possible. In the majority, the only alternative is to cut the matted hair.

The condition can be prevented by following some do's and don'ts of hair care.

Do's

Regular head wash using shampoos to keep scalp clean.
Use of hair oils and conditioners can prevent tangling of hair.
Regular trimming of hair.

Don'ts

Avoid hair wash with hair piled on vertex.
Minimize rotatory rubbing of hair.

Long hair should be given a backwash or be washed in sink.^[4]

Patients with causative factors responsible for plica neuropathica are commonly seen in our practice. Adding a few tips on hair care at the end of our consultation in these cases will definitely help in keeping hair beautiful.

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