Hair Casts or Pseudonits

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Abstract

Hair casts or pseudonits are thin, elongated, cylindrical concretions that encircle the hair shaft and can be easily dislodged. A case of pseudonits in a 9-year-old girl is reported. Though not unusual, false diagnoses are common.

Keywords: Hair casts, hair diseases, pseudonits, scalp dermatitis

INTRODUCTION

Hair casts or pseudonits are 2-7 mm long, discrete, firm, shiny, white, freely movable tubular accretions that encircle the hair shafts of the scalp.[1] Even though they are not unusual, there is scarce literature on them and underdiagnosis is common. They often occur in great numbers and must be correctly differentiated from pediculosis capitis. Hair casts are indeed common in psoriasis, pityriasis amiantacea, pityriasis capitis and seborrhoeic dermatitis.[2] False diagnoses are common, which implies inadequate treatment and becomes a reason for both patient and physician anxiety.[3] The objective of this article is to present a case of hair casts in a child mistreated previously and to discuss this relatively rare condition of the scalp.

CASE REPORT

A 9-year-old girl presented to consultation with asymptomatic small whitish lesions resembling nits, attached to the hair shaft. Nit like formations on the scalp had been noticed since the girl was 2 years old. Other family members were not affected by similar disorder. She was referred from a pediatric clinic with a diagnosis of pediculus capitis and had been treated with ketoconazole and scabicide shampoo, without any improvement. The dermatological examination showed white cylinders, easily deployable, located distal, medial and proximal to the hairs, especially on the occipital and parietal regions, bilaterally [Figure 1]. Mycological culture of hair casts and scalp were performed and both were negative. Capillaroscopy revealed a cylindrical and hyaline mass involving the hair shaft [Figure 2].

DISCUSSION

Despite the small number of cases reported in literature, hair casts do not seem to be rare. Apparently, they are more common in females, particularly in patients who subject their hair to excessive traction for a long period.[4]
Casts seem to be most common among young adults.[4] The pathogenesis is often not clear, but their presence can be associated with pityriasis amiantacea, seborrheic dermatitis, hair nodes, scalp psoriasis, hairstyles with much traction and also the use of hair sprays. All these conditions lead to formation of more consistent root sheaths, which do not disintegrate during the hair growth.[5] However, they can occur without any previous abnormality.

Electron microscopy studies showed that the true peripillous hair casts are usually compounds of the outer root sheath and are rarely composed of the internal root sheath, and often some are made up of both the sheaths, internal and external.[6]

They can be easily slid along the hair shaft.[7,8] This characteristic is of paramount importance in their diagnosis and helps in differentiating them from other scalp disorders, such as pediculosis capitis, piedra, trichomycosis, trichonodosis and trichorrhexis nodosa.[9–11] As is often the case, hair casts may initially be misdiagnosed as the nits of pediculosis capitis [Table 1].

Even though they are benign and have low-morbidity conditions, the fact that they are barely known leads to frequent diagnostic confusion, which may generate unnecessary costs and anxiety for both patients and physicians.[3,4,9,12]

Treatment with keratolitic or coaltar shampoos is ineffective. The best result is obtained with a solution of 0.025% retinoic acid combined with manual removal of the cylinders with comb, but the condition can recur after stopping medication.[8,13–15] A review conducted by the authors found a notable decrease in the number of articles addressing hair casts in the last two decades and new generations of dermatologists have not incorporated it into their list of diagnosis for diseases of the scalp.

Footnotes

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REFERENCES


**Figures and Tables**
White cylinders, easily deployable, located distal, medial and proximal to the hairs
Capillaroscopy – Cylindrical and hyaline mass involving the hair shaft
<table>
<thead>
<tr>
<th>True nits</th>
<th>Pseudonits</th>
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</thead>
<tbody>
<tr>
<td>Tiny yellow, brown or tan dots</td>
<td>Firm, shiny, white, freely movable</td>
</tr>
<tr>
<td>attached to the hair shaft, near to the scalp</td>
<td>tubular accretions that encircle</td>
</tr>
<tr>
<td></td>
<td>the hair shafts of the scalp</td>
</tr>
<tr>
<td>Caused by Pediculus humanus capitis</td>
<td>Etiology unknown</td>
</tr>
<tr>
<td>female lays eggs at base of hair</td>
<td></td>
</tr>
<tr>
<td>Common among children of all ages</td>
<td>Common in young adults</td>
</tr>
<tr>
<td>Highly contagious and easy to spread</td>
<td>Not contagious</td>
</tr>
<tr>
<td>Cause an itchy scalp</td>
<td>Usually asymptomatic</td>
</tr>
</tbody>
</table>

Comparison of true nits and pseudonits