Lesson of the week

Child abuse and trichotillomania

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A 12 year old boy presented with two patches of hair loss on his scalp (figure). A clinical and histopathological diagnosis of trichotillomania was made. On follow up after taking a detailed history, the boy revealed that the hair was being pulled by an abusive teacher during tuition after school. I found two more children similarly abused by the teacher. I discuss the importance of this under-recognised pattern of child abuse and its similarity to trichotillomania.

Localised patch of hair loss on the scalp

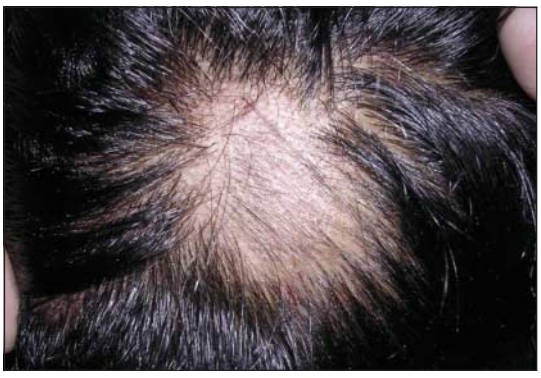
Child abuse has varied manifestations. Physical abuse of a child often results in identifiable dermatological signs, which can pinpoint the diagnosis. Abuse can closely resemble other dermatoses, however, resulting in diagnostic errors.

Trichotillomania is a condition currently classified as an impulse control disorder, which is characterised by repetitive pulling of one's own hair resulting in alopecia.

Case report

A 12 year old boy was referred by his family physician to the dermatology outpatient department with a complaint of partial hair loss on his scalp that was noticed one week before. On examination, there were two patches of partial alopecia on the temporovertical scalp measuring 2 cm by 2 cm and 3 cm by 3 cm. The hair shafts were broken off at different levels and there was no evidence of scarring. The scalp was not tender or bruised. A hair pull test did not find his hair easy to pluck and hair shaft microscopy was normal. A potassium hydroxide preparation from the lesional skin did not show any fungal elements. A skin biopsy from one of the patches found many empty hair bulbs without any inflammation or scarring. Several catagen hair follicles were also identified.

Based on these clinical and histopathological findings, I diagnosed him as having trichotillomania and referred him for psychiatric evaluation. The parents refused psychiatric help, however, and insisted that the child had never pulled his hair. When this topic was broached with the child in the absence of his parents, he denied any knowledge of the possible cause of the hair loss. Several dermatology consultations later, the child volunteered that the hair was being pulled by a teacher who gave him private tuition after school hours. I informed his parents and covert surveillance of the teacher confirmed physical abuse in the form of twisting and pulling of hair. Inquiries to all students being tutored by the teacher found two more cases. I informed the school authorities, and the teacher was referred for psychiatric evaluation. The boy stopped the private tuition, which resulted in full regrowth of hair in both patches within four weeks.



Localised hair loss in a child may be the sole sign of child abuse

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Discussion

Skin lesions are the most common presentation of physical abuse and suggestive or confirmative dermatological signs may be present in up to 90% of all abused children.[1] The most common dermatological signs of child abuse are bruises and abrasions then lacerations, scratches, soft tissue swellings, strap marks, haematomas, burns, and bites.[2] Hair loss as a manifestation of child abuse is usually described in association with underlying scalp bruising or tenderness.[3] In this boy, however, the force applied by the perpetrator was insufficient to cause any damage to the underlying soft tissue: localised hair loss was the sole manifestation of abuse. Also, since the cause of alopecia was the same as in trichotillomania—mechanical twisting and pulling of hair—the clinical and histopathological features were identical. And the usual clues indicating child abuse—delay in seeking help, inconsistent history, and lack of concern by parents—were not present, leading to initial misdiagnosis.

Trichotillomania is often associated with young children and adolescents,[4] and the average age of onset of trichotillomania is 12 years.[5] It is characterised by irregular, non-scarring, focal patches of alopecia, often on the crown, occipital, or parietal region of the scalp. Hair loss tends to occur on the contralateral side of the body from the dominant hand,[6] and the patches of hair loss contain broken hairs of varying length. Tinea capitis, traction alopecia, and alopecia areata are the usual dermatoses that may mimic trichotillomania.[7]

The background in which trichotillomania develops is quite similar to the risk factors for child abuse. In children, trichotillomania often starts at times of psychosocial stress within the family unit such as a disturbed mother-child relationship, hospitalisations, periods of separation, or developmental problems.[8] Recently, a strong relationship of family chaos during childhood and trichotillomania has also been reported, in which 86% of women with trichotillomania reported a history of violence—for example, sexual assault or rape—concurrent with the onset of

trichotillomania.[9] Similar factors, such as violence between parents or siblings, disturbed parent-child interaction, recent death, or illness in the family have been well described as criteria for suspecting child abuse.[10]

A child with this background who presents with mechanical hair loss, may have either condition. Without witnesses to confirm hair pulling by the child, the possibility of child abuse should be kept in mind and initial assessment should aim to confirm only the diagnosis of mechanical alopecia. Other causes of mechanical alopecia—traction alopecia due to unusual hairstyles or hair accessories[11] or localised hair shaft abnormalities[12]—should then be ruled out. Subsequently, attempts to find the person responsible for pulling the hair should be made with the objective of getting disclosure by the child. This may require collaboration with the family doctor or pediatrician.

The case exemplifies the need to keep a high index of suspicion not to miss child abuse. In cases of localised hair loss in children, especially if a mechanical alopecia—trichotillomania or traction alopecia—is being considered, the possibility of child abuse should also be kept in mind while examining the patient.

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The pledge

She was in her 60s and had had osteoarthritis of both hips for nearly 10 years. When I saw her in my outpatient clinic she could hardly walk and was brought in a wheelchair. I thought she was an ideal candidate for bilateral hip replacement, and this was carried out in due course by one of my colleagues.

Shortly after Christmas of the same year, she requested an appointment with me. It was a different woman who now confidently walked into the consulting room. "Doctor, I am very well and only came to thank you for what you have done for me. My husband is now retired, but he had worked so long for the same company that every year we are invited to their Christmas party. Nobody knew about my operations so, at this year's party, my husband asked the band to play a waltz when the dancing began. As soon as the bandleader raised his baton, we stood up and my husband led me onto the floor. All present were left speechless for a moment and then began to applaud. Thank you, doctor"

Some time later I was asked to see a nun who had mild rheumatoid arthritis and well advanced osteoarthritis of both hips. She must have been more than 60 years old. She could take only a few steps at a time, and was in effect confined to a wheelchair. I told her that it might be a rough passage, but I believed that she had a good chance of being able to walk again. On a sudden impulse, I added lightheartedly, "But there is one condition; you must promise that your first waltz will be mine."

She seemed a little embarrassed, and I began to regret what I said, when she looked at me and said with a mischievous smile, "I promise."

She attended my follow up clinic some months after the bilateral hip replacement. She now walked normally with the help of a stick. "Well, sister," I said to her, "I am very pleased to see that you don't have any problem with walking, but what about my waltz?"

"No, doctor, I have not forgotten, and I am going over the steps with another nun."

When she left I had visions of two nuns dancing in some remote room in the convent, when Mother Superior walks in: "What do you think you are doing, sisters? Return to your cells at once!"

Some months later, I was walking through the outpatients when I noticed two nuns waiting outside my consulting room. "My" nun, who was the first on my list, walked in alone and asked me whether her companion could join us. When she did she took a tape recorder from under her coat; my patient turned to her and, with a snap of her fingers, commanded, "Music, sister, please."

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