Review of Trichotillomania and comparison with Alopecia areata

Sarosh Ahmed Khan, MD, MAAFP and Hamdi Hassan Shelleh, MD

Trichotillomania (TT) is an anxiety disorder characterized by the persistent and excessive pulling of one's own hair, resulting in noticeable hair loss. The understanding about the disorder is still not very clear. Hair pulling can occur on any part of the body where hair grows. The most common area of hair pulling is the scalp, followed less commonly by the eyebrows, eyelashes, pubic region etc.

The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) classifies TT as an impulse-control disorder. The diagnostic criteria for trichotillomania are (1): (1) recurrent pulling out of one's hair, resulting in noticeable hair loss, (2) an increasing sense of tension immediately before pulling out the hair or when attempting to resist the behavior, (3) pleasure, gratification, or relief when pulling out the hair, (4) the disturbance is not better accounted for by another mental disorder (eg, in response to a delusion or a hallucination) and is not due to a general medical condition (eg, a dermatologic condition), and (5) the disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

The hair-pulling behavior can occur during both relaxed and stressful times. In many individuals, adolescent-onset TT indicates more severe psychopathology as an impulse-control disorder or OCD, whereas preschool-onset TT often is described as a childhood habit disorder. TT in younger children often is mistaken for a short-term habit of hair pulling; therefore, careful analysis of the duration of the behavior is important for making the diagnosis because the behavior must last several months to be considered TT. Many times, children feel ashamed and embarrassed by the hair loss caused by pulling. TT may result in impairment in many important areas of functioning. Extremely short fingernails (from nail biting) frequently accompany TT, especially in children (2). In addition, trichophagia (ie, mouthing and/or ingesting hair) is common in persons who pull out their hair. This chewing or mouthing behavior can lead to the formation of trichobezoars (ie, hair casts) in the stomach or small intestines. Trichobezoars in turn lead to many complications. In extreme cases this can lead to Rapunzel syndrome, and even death (3,4).

Frequency: Due to social implications the disorder is often denied and unreported and therefore it is difficult to accurately predict prevalence of TT. Estimates indicate that in the US approximately 8 million people have TT. In a study of college students, approximately 1-2% had past or current symptoms of TT (5). TT is more common in children where TT typically is observed in equal numbers of males and females. Among adults, more females than males present with the disorder. TT frequently lasts for weeks to decades. The mean age of onset is 13 years with an average duration of 21 years. Peaks of onset exist (ie, in children aged 5-8 y, in adolescents aged 13 y). A child as young as 1 year and adult as old as seventy have been diagnosed with TT.

Physical signs include

Alopecia: The area(s) of alopecia can range from barely noticeable areas of hair loss to total baldness.
Friar Tuck sign: This common presentation of TT includes areas of hair loss with broken hairs of varying lengths arranged in a circular pattern. Thus, unaffected hairs surround an area of hair loss (2).
Hair regrowth: Patients may exhibit signs of variable lengths of hair during the regrowing phase.
Absence of skin abnormalities or inflammation: Individuals with TT do not typically exhibit signs of excoriation or other dermatologic pathology that may be common in individuals with tinea capitis.
Hair abnormalities: - Empty and/or damaged hair follicles, - Twisted and/or broken hairs of varying length, - Wavy, wrinkled, or corkscrew-shaped hair shafts

**Causes:** The etiology of TT continues to be unknown. However, the following explanations are proposed hypotheses for the onset and maintenance of the hair-pulling behavior: Serotonin deficiency, Structural brain abnormalities, Abnormal brain metabolism, and Psychological theories. Anxiety, depression and Obsessive Compulsive Disorder are more frequently encountered in people with TTM (6).

**Diagnosis:** This 22 years old Kashmiri female had history of “hair loss” of four years duration. She was pale too and had pica to clay and hair. Her pica improved after parenteral iron sucrose therapy but her trichotillomania did not. She was put on sertraline but did not show much improvement. Here the picture shows a geometrical shape and incomplete nonscarring alopecia of the involved area which is typical of TT.

The below shown 18 years old girl had TT of seven years duration. She would hide it under the scarf she wore. Her father has two wives and lives with the second one leaving this girl and her siblings with their mother. Both these patients were unmarried. Here the picture shows extensive involvement of the scalp, sparing only marginal areas, which is termed **tonsure TT** after monks in the Middle Ages whose hair was tonsured.

**Differential Diagnosis:** Tinea capitis, alopecia areata. Approximately 33% of children who have TT are misdiagnosed as having alopecia areata. November 2008 issue of Physicians Academy carries a review article on Alopecia areata (7). We have also reported a case of TT of the left eyebrow in an adult Saudi male in the International Journal of Dermatology (8). In addition other causes too have to be considered like Traction alopecia, male pattern baldness, infections, medications, febrile illnesses, and crash diets.
Consultations: Consult with psychiatry, psychology, or developmental-behavioral pediatrics specialists. As suggested by several studies, the first line of treatment in such children is behavioral treatment and intervention. Effective behavioral strategies in the treatment of TT in children include the following: Habit reversal. Self-monitoring. Competing reaction training. Relaxation training. Psychotherapy. Hypnosis. Elimination of a comorbid behavior.

TT may require close monitoring especially while patients are watching television, reading, talking on the phone, lying in bed, driving, writing or doing paperwork. In addition some patients need SSRIs e.g. fluoxetine, sertraline, fluvoxamine.

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<thead>
<tr>
<th>Alopecia areata</th>
<th>Trichotillomania</th>
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<tbody>
<tr>
<td>1. Uncommon</td>
<td>Rare</td>
</tr>
<tr>
<td>2. Skin Disorder</td>
<td>Psychiatric disorder</td>
</tr>
<tr>
<td>3. Dermatologic treatment</td>
<td>Psychiatric/Psychologist treatment</td>
</tr>
<tr>
<td>4. Skin normal</td>
<td>Skin sometimes shows comedone like black marks of plucking</td>
</tr>
<tr>
<td>5. Loss patchy and length uniform</td>
<td>Loss patchy but length not uniform</td>
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<tr>
<td>6. Not seen</td>
<td>Occipital trailing sign</td>
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<tr>
<td>7. Not seen</td>
<td>Tonsure trichotillomania</td>
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<td>8. Self limiting/ treatment effective</td>
<td>Often resistant to treatment</td>
</tr>
<tr>
<td>9. Ingestion not a feature</td>
<td>Trichophagia and trichobezoar sometimes seen</td>
</tr>
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<td>10. Prognosis variable but good</td>
<td>Prognosis poor</td>
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</tbody>
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References:

Conflict of Interest: None.

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