In 1889, a French physician named Francois Hallopeau described a young man who pulled out all of his body hair. Hallopeau coined the name trichotillomania, deriving it from three Greek words - thrix, meaning hair, tillein, meaning to pull, and mania, which has several meanings, but most often implies insanity or frenzy.

Trichotillomania is listed in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, text revision [DSM-IV-TR American Psychiatric Association (APA)] as an impulse control disorder, and it lists the criteria for a proper diagnosis:

A: Recurrent pulling out of one’s own hair that results in noticeable loss.
B: An increasing sense of tension immediately before pulling out the hair or attempting to resist the behaviour.
C: Pleasure, gratification, or relief when pulling out the hair.
D: The disturbance is not better accounted for by another mental disorder and is not due to a general medical (e.g. dermatological) condition.
E: The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Comparative nosology

It is classified in DSM-IV as an impulse control disorder with pyromania, pathological gambling and kleptomania, and includes the criterion of an increasing sense of tension before pulling the hair and gratification or relief when pulling the hair. Trichotillomania has phenomenological overlap with obsessive-compulsive disorder and Tourette syndrome, and consequently represents a candidate member of the obsessive-compulsive spectrum.

Epidemiology

It is more common in females (3.4%) than in males (1.5%).

Lifetime prevalence is estimated to be between 0.6 - 1 percent. Trichotillomania may be present in infants, peak age of onset is 12-13 years.

Causes & Pathophysiology

The exact cause of trichotillomania is not yet known. Scientific research regarding trichotillomania has been conducted primarily in the past 10 years and causes are only theoretical.

Some studies have shown that the cause of trichotillomania appears to involve both biological and behavioural factors. Research has found a potential link between impulse control disorders, such as trichotillomania, and certain neurotransmitters.

Neurotransmitters help nerve cells in the brain send messages to each other. An imbalance of these chemicals can affect how the brain controls impulses.

Psychoanalytic theories suggest that the behaviour is a way of dealing with unconscious conflicts or childhood trauma (such as sexual abuse).

Biological theories look for a genetic basis. For instance, people with trichotillomania often have a first-degree relative with an obsessive-compulsive spectrum disorder. Researchers are also evaluating similarities between trichotillomania and Tourette's disorder.

Behavioural theories assume that symptoms are learned, that a child may imitate a parent who engages in hair-pulling. The behaviour may also be learned independently if it serves a purpose. For example, hair-pulling may begin as a response to tension or stress and then develop into a habit. It may be triggered by depression or stress. Due to social implications the disorder is often unreported and it is difficult to accurately predict its prevalence.

Clinical features

Trichotillomania is defined as a self-induced and recurrent loss of hair. Affected people experience an increasing sense of tension before the act. The scalp is the most common pulling site, followed by the eyebrows, eyelashes, face, arms, legs, and pubic hairs. The classic presentation is the “Friar Tuck” form of vertex and crown alopecia. Children are less likely to pull from areas other than the scalp. Some people will use their thumb and forefinger, some will use tweezers, or twirl the hair around their finger or a foreign objects (e.g. a hairbrush or a pencil), and some will scratch or rub the hair out. Some cases have shown individuals who even use needles

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and other sharp objects to dig the hair from under their skin. These episodes often occur in states of relaxation, such as when the individual is reading or watching television, but they can also occur in state of stress as well.

Individuals with trichotillomania exhibit hair of differing lengths; some are broken hairs with blunt ends, some new growth with tapered ends, some broken mid-shaft, or some uneven stubble. Scaling on the scalp is not present, overall hair density is normal, and a hair pull test is negative (the hair does not pull out easily). Hair is often pulled out leaving an unusual shape; individuals with trichotillomania may be secretive or shameful of the hair pulling behaviour.

Medical complications associated with trichotillomania include infection, permanent loss of hair, repetitive stress injury carpel tunnel syndrome and gastrointestinal obstruction as a result of trichophagia. In trichophagia, people with trichotillomania also ingest the hair that they pull; in extreme (and rare) cases this can lead to a hair ball (trichobezoar). Rapunzel syndrome, an extreme form of trichobezoar in which the “tail” of the hair ball extends into the intestines, can be fatal if not diagnosed.

**Management**

The management of trichotillomania has not been clearly defined and is an area of ongoing research. Because no single treatment will work for everyone, a complete psychiatric assessment will aid in identifying which medication may be helpful for them. This assessment should include information about the picking other mental health problems of the individual (including drug and alcohol problems), current medications and allergies, any previous trials of medication, and psychiatric problems within the family.

**Habit reversal training (HRT)** is a “multicomponent behavioural treatment package originally developed to address a wide variety of repetitive behaviour disorders”. HRT is found to be effective in the treatment of trichotillomania, which includes five components:

1. Awareness training,
2. Competing response training,
3. Contingency management,
4. Relaxation training, and
5. Generalisation training.

**Pharmacological approach**

**Clomipramine (anafranil)**

The first study for trichotillomania found that clomipramine (anafranil), a medication affecting the brain neurotransmitters serotonin and norepinephrine, was beneficial in treating hair pulling. Clomipramine has both antidepressant and antiobsessional properties. Therefore, this may be a potentially beneficial medication for those who have trichotillomania in addition to depression or obsessive compulsive disorder.

**Selective Serotonin Reuptake Inhibitors (SSRIs)**

Several studies have examined SSRIs in treating trichotillomania and skin picking. The SSRIs include: fluoxetine (Prozac), fluvoxamine (Luvox), sertraline (Zoloft), citalopram (Celexa), escitalopram (Lexapro), and paroxetine (Paxil).

Naltrexone (Revia): An opioid antagonist, Naltrexone, is approved by the PDA for the treatment of alcohol dependence and opiate dependence. Naltrexone was examined in one controlled study of trichotillomania and demonstrated potential benefit because naltrexone reduces urges to engage in pleasurable neuroleptics.

Dopamine-blocking neuroleptics have also been examined in the treatment of trichotillomania and skin picking. The rationale for their use is due to a possible link between repetitive behaviours and tic disorders such as Tourette’s disorder. A controlled study of olanzapine (Zyprexa) found that the medication was significantly more effective than a placebo in reducing hair pulling.

**Lithium**

Lithium, a medication approved for the treatment of bipolar disorder, has shown some benefit in individuals with trichotillomania in uncontrolled studies. Lithium may be beneficial to those who are generally impulsive or have considerable emotional instability.

**Other Agents**

A variety of other medications have shown early promise in the treatment of trichotillomania and skin picking.

Medications that affect the neurotransmitter, glutamate may be beneficial. Glutamate appears to have a role in the area of the brain involved in compulsive, repetitive behaviours. These medications include lamotrigine (lamictal) (PDA-approved for bipolar disorder), riluzole (Rilutek) (PDA-approved for ALS), and the amino acid N-Acetyl Cysteine. These...
medications may be beneficial alone or in combination with an SSRI.

**Non Pharmacological treatment**

In infant patients, loving care with enough maternal skin contact plus available transitional objects such as dolls or other toys would work well. For this purpose, parent-infant psychotherapy in combination with behavioural guidance may be needed.

Parental involvement for the children should include enough support so that they grow well intellectually, physically, and socially. Shaving or clipping hair close to the scalp may be helpful to stop the behaviour and to assure the parents of the nature of the alopecia. Shaving a circumscribed area weekly (the “hair growth window”) can have both diagnostic and reassurance benefits. Remember that the shaved (clipped) hairs are not all in the actively growing anagen stage and that a couple of months may be required before total regrowth is noted. Discuss with the patient, ways to identify stress full situations. Teach alternative adaptive strategies Teach assertive and relaxation techniques.

### References

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