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Annals of General Psychiatry An unusual case of trichotillomania and trichophagia in a young African American female adult

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Case Report

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Abstract

Background

Trichotillomania refers to repetitive pulling of hair from the body and may be accompanied by trichophagia, the ingesting of extracted hair. It is frequently comorbid with other psychiatric disorders and resulting hair loss can seriously affect quality of life. Trichophagia can lead to trichobezoars, indigestible aggregations of hair in the gastrointestinal tract that can cause pain and bowel obstruction. Descriptions of trichotillomania and trichophagia have generally assumed European hair texture and styling conventions with little attention to Black hair. Here we report the case of a patient with small bowel obstruction from ingestion of hair extracted from a hair weave, a popular styling practice and form of hair extension frequently used with women of African descent and various ethnic groups.

Case Presentation

A 23-year-old African American female presented with abdominal pain and a history of trichophagia of hairs pulled from her hair extensions. Laparoscopy confirmed a gastric trichobezoar, which was removed surgically. The patient recovered from surgery and her physical symptoms resolved.

Conclusions

Weaves, a form of hair extensions, can be the source of hair for the repetitive hair pulling and eating behaviors of trichotillomania and trichophagia. Cultural awareness of Black hair styles is crucial to prevent these behaviors from going unidentified. Research into potentially unique risk factors for this behavior in the Black community and hazards of the material ingested is needed.

Background

The term trichotillomania refers to the recurrent practice of extracting one's own hair, along with the attempts to decrease this practice. This behavior may be associated with feelings of gratification, pleasure, or even relief as the hair is pulled from the scalp, eyelashes, eyebrows, or pubic area [1, 4]. Specific emotional states such as anxiety and boredom have also been associated with trichotillomania [1], and comorbidity with depression is not uncommon [10].

Trichophagia, which refers to the consumption of hair, occurs in 20–30% of people who are diagnosed with trichotillomania [9]. Trichophagia can lead to trichobezoars, which are physical obstructions caused by collection of hair in the intestinal tract. Trichobezoars are often associated with anemia, abdominal pain, nausea and vomiting, and can lead to bowel obstruction [1]. In more rare instances, a trichobezoar may extend into the small intestines and/or beyond, which is referred to as "Rapunzel syndrome" [7].

There is little research concerning the presentation of trichotillomania in African American culture. This is an area worthy of attention because of the unique physical, cultural, and historical aspects of African American hair and its styling. One study written by Angela Neal-Barnett and colleagues studies the

relationship between anxiety, culture, and trichotillomania in a sample of professional African American females [11]. The study found a near-significant relationship between trichotillomania and both generalized anxiety and obsessive-compulsive disorder, suggesting a pattern of comorbidity possibly unique to the African American community that could be researched further. The study also notably brings attention to the physical properties of black hair and how these properties are commonly associated with messages that may affect self-perception, whether they are positive or negative. A study of the phenomenology of hair-pulling in a community sample underscored the role of poor self-perception in motivating the behavior [6]. For African American patients, these self-perceptions are even more relevant in a broader cultural milieu that traditionally prizes European standards of beauty. Though while the increased use of hair extension and weaves, as seen with many African American entertainers and many in the general population can be viewed as a byproduct of assimilation in one instance it also serves as a means of a protective style of their natural hair for many [14].

In this case report, the relationship between trichotillomania, trichophagia, anxiety, and cultural differences in the presentation of these conditions in an African American female will be discussed.

Case Presentation

A 23-year-old African American female with a history of trichotillomania and trichophagia was seen by the psychiatry consult team while admitted to the hospital for treatment of abdominal pain due to a small bowel obstruction. She was ultimately treated with a laparotomy for removal of a trichobezoar. The patient reported that she had been consuming human hair from her weave, a type of hair extension, in order to relieve symptoms of stress-induced anxiety. She reported cravings for a duration of around 6 months during her pregnancy. The frequency of these cravings was about 3 times per week, and she typically ingested only one strand of hair at a time though occasionally consumed more. The cravings ceased after the delivery of her child and had not returned since. The patient also had a previous case of similar trichophagia and trichotillomania leading to abdominal pain at age 13. During both episodes of trichophagia and trichotillomania, symptoms came about when she was nervous, and the behavior helped relieve some anxiety. This patient reported that she experienced some worry every day but denied any muscle tension, fatigue, concentration, restlessness, or sleep disturbance. She screened negative for depression, Obsessive Compulsive Disorder, Post Traumatic Stress Disorder or psychosis. She did not have any other history of psychiatric diagnoses, medication, or therapy. The patient smoked cigarettes before her pregnancy but stopped when she became pregnant, and she also denied any use of alcohol or illicit substances. This patient was previously diagnosed with chronic anemia leading to low iron for which she took supplements. Her medical record indicated previous diagnosis with von Willebrand disease, but she was asymptomatic, and the disease was never confirmed.

On the mental status exam, the patient was alert, calm, cooperative, and appeared comfortable in her hospital bed. She was dressed in a hospital gown, was well groomed, and appeared well nourished. She appeared her stated age. She described her mood as "fine”, and her affect was congruent. She appeared relaxed and was friendly. She spoke in a normal rhythm with appropriate volume, and she was easy to

understand. She had a coherent, linear, and goal-oriented thought process. She showed no signs of delusions, hallucinations, suicidal ideation, or homicidal ideation. She did not have any difficulty sustaining attention throughout the interview and performed well on serial-sevens subtractions. Her memory of recent events was intact. She had no gross abnormalities in intelligence or cognition, easily describing abstract similarities between word pairs such as table: chair and bus: bicycle. She showed good insight about her behavior as a response to states of anxiety and showed good judgment in her decisions.

This patient was discharged with conversative management of her small bowel obstruction but developed worsening abdominal pain and nausea overnight, leading to a return to the hospital. Endoscopy confirmed a gastric trichobezoar, which could not be removed endoscopically due to its size. A laparotomy was performed to remove the bezoar. She was returned to the hospital floor postoperatively and kept on nasogastric tube decompression until bowel function normalized. Her diet was advanced as tolerated until she was again consuming a regular diet. Bowel movements resumed. Having met all postoperative milestones, she was discharged home. Seen during her recuperation from surgery, her mental status exam was unchanged from the previous visit and did not show any abnormalities.

Discussion And Conclusions

Trichotillomania in African American females is a topic that is not widely covered in the literature [11]. In an older study by Angela Neal-Barnett et al., they interviewed African American hair care professionals and chronic hair pulling customers [12]. They found chronic hair pulling was the primary cause of 29/80 customer's own hair loss, and all customers that hair care professionals identified to be hair pullers were all women [12]. Of the 29 individuals, 21 customers, all of which were women all met criteria for trichotillomania, one customer admitted to trichophagia, and 3 customers noted these behaviors had been ongoing since childhood [12]. This suggests that there are many women that suffer from trichotillomania and go untreated. A unique finding about our patient is that the hair extraction was not from a part of the patient's own body, but from a weave made of human hair. She did not report feeling any sensations, either emotional or physical, when pulling the hair from the weave. The consumption of the hair is what brought relief from her feelings of anxiety, which had been exacerbated by her recent pregnancy and relationship issues. A previous episode of this behavior at the age of 13 had likewise relieved stress, at that time described by the patient as related to expectations of high academic performance from her mother.

To fully appreciate the cultural presence of the weave in African American society, an understanding of why many African American people wear weaves is important. Black hair's role in shaping black identity in America can be traced at least as far back as the early 1900s, in which straight, long hair and lighter skin was more favored, both within white and African American communities [14]. Advertisements for hair products began to proliferate, all promoting an idealized version of straight Black hair that eventually became associated with higher chances at employment and success [3]. In addition, part of what drove this shift toward straight hair was the economic appeal of a growing market of Black consumers as

thousands migrated into northern cities throughout the first half of the 20th century. White-owned companies such as Plough and Ozonized Ox Marrow marketed their products by "promising a cure for the curse of kinky hair" [3]. By the early 1990s and throughout the later years, the weave industry, which produced a stylized form of synthetic or real human hair, became so popular that 1.3 million pounds of human hair valued at $28.6 million was imported from countries like India, China, and Indonesia [3].

To continue the discussion of Black hair and its importance, a study performed by Brittani Young, in which 15 African American women from South Carolina were interviewed can be discussed. Many of the participants discussed difficulty with managing their hair due to thickness, and eventually opted to perm their hair, which refers to a chemical procedure that loosens the kinks of the hair. Another interviewee expressed that she believed her mother encouraged a perm in order to "align herself with the imposed Eurocentric beauty standards that deemed straight and sleek hair as beautiful and acceptable" [15]. Other interviewees recalled moments in which they felt anxiety about fitting in at school or were mistreated by other professionals in the workplace due to the nature of their hair.

Young further highlights how many of her interviewees have discussed the concept of being in a "black space" where young women do not feel confined to a certain standard and feel more freedom and expression. On the opposite spectrum, Young compares black hair to the concept of a "veil" and states that "as a form of covering, hair wigs and weaves take on the same meaning of the veil," as in non-safe spaces such as the workplace, where such hairstyles are considered being more "appropriate". Many interviewees described being more comfortable with their natural hair as they aged due to positive shifts in platforms like social media. More and more women continue to celebrate and embrace their natural hair, with many partaking in the "big chop", where all chemically treated hair is cut to allow for new growth, natural curl patterns and textures [2]. However, there is still much controversy surrounding Black hair today, even in the 21st century. This analysis regarding black culture and the involvement of hair in shaping one's identity cannot fully explain the patient's presentation of trichotillomania, but it can perhaps partially explain the patient's presentation of anxiety and stress, which was relieved by consumption of her weave.

To reiterate one of the earlier points made, a consideration to keep in mind when treating black patients is that most of the current literature about trichotillomania is regarding its presentation in the White population. Thus, it is important to keep in mind that some Black patients have grown up in a societal environment where non-natural methods of attending to Black hair have been promoted, which, as aforementioned, can lead to a presentation of generalized anxiety and trichotillomania at least in part due to self-perception related to the differences in the physical properties of black hair [11]. Bringing more awareness to trichotillomania in the Black population can help patients better understand their diagnosis.

In terms of possible treatments for trichotillomania, there is a wide range of therapy available, which include cognitive behavioral therapy, habit reversal training, acceptance and commitment therapy. Other treatment options that may be effective include supportive counseling, support groups, hypnosis, medications and combined approaches [10]. In regard to pharmacological treatments, data on SSRIs

remain controversial, noting behavioral therapy sustained more long-term benefits compared to fluoxetine [5]. There is some data on TCAs such as clomipramine however side effect profile may confer more risks than benefits. Other pharmacological treatments that have been investigated include a-acetylcysteine, olanzapine, naltrexone, topiramate, modafinil as well as cannabinoid agonists like dronabinol, however more research is needed to confirm their efficacy [5].

Unfortunately, there is not a strong amount of literature supporting approaches, with fewer than 20 randomized controlled trials available to guide treatment choice and implementation. Additionally, many of the randomized treatment outcome studies have looked at behavioral therapies or medications, with mixed results, especially with respect to the efficacy of medication. Conclusions that can be drawn from analysis of this data include several points. First, cognitive behavioral therapy has shown to be helpful for treatment following acute treatment, although relapse appears to be a problem. Selective serotonin-reuptake inhibitors generally do not appear to be efficacious in reducing trichotillomania [10].

Declarations

Ethics approval and consent to participate

Not applicable.

Consent for publication

Written informed consent to participate was obtained from the patient in a hospital setting. Consent for publication was attained by talking to the patient in a hospital setting and the possibility was discussed.

Availability of data and materials

The data was attained through online, open access journal articles.

All data generated or analyzed during this study are included in this published article.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

AK and AP analyzed and interpreted the patient information regarding trichotillomania and trichophagia. GL, TO, and MM reviewed the article and added suggestions. All authors read and approved the final manuscript.

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Footnotes

Not applicable.

References

1. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Washington D.C.: 2013.
2. Bosley RE, Daveluy S. A primer to natural hair care practices in black patients. Cutis. 2015 Feb;95(2):78–80,106. PMID: 25750968
3. Byrd, A. D., & Tharps, L. L. (2014). *Hair story: Untangling the roots of Black hair in America.*
4. Christenson GA, Mackenzie TB, Mitchell JE. Characteristics of 60 adult chronic hair pullers. Am J Psychiatry. 1991 Mar;148(3):365 – 70. doi: 10.1176/ajp.148.3.365. PMID: 1992841.
5. Cisoń H, Kuś A, Popowicz E, Szyca M, Reich A. Trichotillomania and Trichophagia: Modern Diagnostic and Therapeutic Methods. Dermatol Ther (Heidelb). 2018 Sep;8(3):389–398. doi: 10.1007/s13555-018-0256-z. Epub 2018 Aug 11. PMID: 30099694; PMCID: PMC6109030.
6. Duke, D. C., Bodzin, D. K., Tavares, P., Geffken, G. R., & Storch, E. A. (2009). The phenomenology of hair pulling in a community sample. Journal of Anxiety Disorders, 23(8), 1118–1125. doi:10.1016/j.janxdis.2009.07.015
7. Flaherty DC, Aguilar F, Pradhan B, Grewal H. Rapunzel syndrome due to ingested hair extensions: Surgical and psychiatric considerations. Int J Surg Case Rep. 2015;17:155-7. doi: 1016/j.ijscr.2015.11.009. Epub 2015 Nov 19. PMID: 26629852; PMCID: PMC4701859.
8. Franklin, M. E., Zagrabbe, K., & Benavides, K. L. (2011). Trichotillomania and its treatment: a review and recommendations. Expert review of neurotherapeutics, *11*(8), 1165–1174. https://doi.org/10.1586/ern.11.93
9. Grant, J. E., & Odlaug, B. L. (2008). Clinical characteristics of trichotillomania with trichophagia. Comprehensive psychiatry, *49*(6), 579–584. https://doi.org/10.1016/j.comppsych.2008.05.002
10. Lochner, C., Keuthen, N. J., Curley, E. E., Tung, E. S., Redden, S. A., Ricketts, E. J., Bauer, C. C., Woods, D. W., Grant, J. E., & Stein, D. J. (2019). Comorbidity in trichotillomania (hair-pulling disorder): A cluster analytical approach. Brain and behavior, *9*(12), e01456. https://doi.org/10.1002/brb3.1456
11. Neal-Barnett A, Statom D, Stadulis R. Trichotillomania symptoms in African American women: are they related to anxiety and culture?. CNS Neurosci Ther. 2011;17(4):207–213. doi:10.1111/j.1755-5949.2010.00138.x
12. Neal-Barnett AM, Ward-Brown BJ, Mitchell M, Krownapple M. Hair pulling in African Americans–only your hairdresser knows for sure: an exploratory study. Cultur Divers Ethnic Minor Psychol. 2000

Nov;6(4):352 – 62. doi: 10.1037/1099-9809.6.4.352. PMID: 11089311.

13. Okoye, Ginette & Aguh, Crystal. (2016). Fundamentals of Ethnic Hair: The Dermatologist's Perspective. 10.1007/978-3-319-45695-9.
14. Quinn CR, Quinn TM, Kelly AP. Hair care practices in African American women. Cutis. 2003 Oct;72(4):280-2, 285-9. PMID: 14604079.
15. Young, B.(2018). Why Is No One Getting A Weave Of An Afro: Examining Culture, Economy, And Domestic Human Hair Consumption By African American Women. (Master's thesis). Retrieved from https://scholarcommons.sc.edu/etd/4968