

## New Avenues in Management of Trichotillomania

Sir,

In 1889, Hallopeau coined the term trichotillomania, meaning a 'morbid craving to pull out one's hair'.<sup>[1]</sup> Trichotillomania is basically a primary psychiatric disorder with a typical dermatologic manifestation (alopecia). Originally, trichotillomania was classified as an impulse control disorder; however, it is now widely accepted that

there is a possibility of a broad spectrum of additional psychopathology such as obsessive compulsive disorder (OCD), dysmorphophobia/body dysmorphic disorder, and mood disorders.<sup>[2,3]</sup> Trichotillomania causes varying degrees of functional impairments, apart from significant hair loss/alopecia. The Diagnostic and Statistical Manual of Mental Disorders (DSM)-IV-TR diagnostic criteria for trichotillomania includes: (1) Recurrent pulling out of

one's own hair resulting in 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; and (5) the disturbance provokes clinically marked distress and/or impairment in occupational, social, or other areas of functioning.<sup>[4]</sup> Pulled out hair may be ingested by the patient leading to trichobezoar (a compact mass of hair occupying the gastric cavity to a variable extent) and Rapunzel syndrome (a trichobezoar extending past the duodenum); these conditions usually require surgical interventions.

Management of trichotillomania is challenging. A number of treatment modalities have been used including psychotherapy, hypnotherapy, and pharmacotherapy; though treatment response is variable and relapses are frequent.

Dialectical behavior therapy enhanced habit reversal treatment offers significant promise for improved long-term treatment benefits in trichotillomania.<sup>[5]</sup> In a recent study, Keuthen *et al.*, reported significant improvement from baseline at 3-and 6-month follow-up on all measures of hair pulling severity and emotion regulation following dialectical behavior therapy enhanced habit reversal therapy.<sup>[6]</sup> Hypnotherapy has also been reported to be effective in trichotillomania.<sup>[7]</sup>

Dronabinol is a cannabinoid agonist which is hypothesized to reduce the excitotoxic damage caused by glutamate release in the striatum. This medication offers a new promise in reducing compulsive behaviors. In a study, the use of dronabinol, at an average dose of 11.6 mg/day, decreased the Massachusetts General Hospital Hair Pulling Scale scores (MGH-HPS) from a mean of  $16.5 \pm 4.4$  at baseline to  $8.7 \pm 5.5$ . About 64% of patients responded with  $\geq 35\%$  reduction on the MGH-HPS and there was 'much or very much improvement' on the Clinical Global Impression (CGI) scale.<sup>[8]</sup>

N-acetylcysteine is a glutamate modulator which has shown some promise in treatment of compulsive behaviors. Rodrigues-Barata *et al.*, described clinical improvement of two patients of trichotillomania with N-acetylcysteine.<sup>[9]</sup> A large trial of 50 trichotillomania patients also reported significant improvement with this medication.<sup>[10]</sup> However, a recent randomized, double-blind, controlled trial of N-acetylcysteine in pediatric age group (8-17 years) failed to show a statistical benefit over placebo (response rate of 25 versus 21%, respectively).<sup>[11]</sup> The authors of this study stressed the importance of referring pediatric patients of trichotillomania to appropriate behavioral therapy before starting pharmacological interventions.

In another important study, a second generation (atypical) antipsychotic (SGA), olanzapine at an average dose of 10.8 mg/day was used. The intervention showed significant improvement of trichotillomania responders as per Clinical Global Impressions-Improvement (CGI-I) scale. There was also a significant change from baseline to end point in the Yale-Brown Obsessive Compulsive Scale for Trichotillomania (TTM-YBOCS) and the Clinical Global Impressions-Severity of Illness (CGI-S) scale.<sup>[12]</sup> In addition, aripiprazole, another SGA, has also shown promise in treatment of trichotillomania.<sup>[13]</sup>

Bimatoprost is a synthetic prostaglandin analogue used for glaucoma and ocular hypertension. Peabody *et al.*, recently reported successful treatment of eyelash madarosis (due to trichotillomania) in a female patient with use of bimatoprost 0.03% ophthalmic solution.<sup>[14]</sup> Treatment of trichotillomania with mood stabilizers, for example, lithium has also been suggested.<sup>[15]</sup>

Thus, starting with successful but relatively older pharmacotherapy options of clomipramine and selective serotonin reuptake inhibitors (SSRIs), there are now a number of new treatment modalities for this difficult to manage entity. Most of these require validation in controlled clinical trials. And still, the role of psychotherapeutic interventions in both pediatric as well as adult patients cannot be over-emphasized.

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