

# N-Acetyl cysteine use in trichotillomania: dramatic improvement in two children

## Abstract

N-Acetyl cysteine (NAC) has been increasingly used for several psychiatric conditions such as autism spectrum disorders, obsessive compulsive disorder, hoarding disorder etc. Here we report two cases with diagnosis of trichotillomania who had been treated with NAC successfully.

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## Introduction

Trichotillomania is in the class of "Obsessive-Compulsive Disorder (OCD) and Associated Disorders" in DSM-5<sup>1</sup> and characterized by repetitive hair pulling resulting in hair loss. N-acetylcysteine (NAC) is a precursor to the amino acid cysteine, a modulator of the glutamatergic system and has role in oxidative stress.<sup>2</sup> It has been shown that NAC is effective in various psychiatric problems especially in OCD and related disorders.<sup>3-5</sup> Here we report two cases with trichotillomania who were treated with NAC successfully.

## Case reports

Our first case was a 11-year-old girl with symptoms of eyebrow and eyelash picking for six months. After 3 months of treatment with risperidone (2,5mg/day) and fluoxetine (20mg/day) due to side-effects and low compliance NAC 600 mg/day monotherapy was started. The maintenance NAC dose was 1200mg/day. Her baseline and 2-months duration endpoint Clinical Global Impression scale disease severity (CGI-S) score was 5 (markedly ill) and 1 (Normal, not at all ill) respectively.

Our second case was a 16-year-old male patient with complaints of hair pulling for 2 months. Due to experience adverse effects with fluoxetine 20mg/day NAC (600mg/day) was started as a monotherapy. The maintenance NAC dose was 1200mg/day. His baseline CGI-S score was 5. After 2 months of NAC treatment, final score was 2 (borderline ill). Both of the cases responded well without any adverse effect.

## Conclusion

Although a recent study in pediatric trichotillomania, NAC showed no superiority over placebo in a randomized controlled add-on trial;<sup>2</sup> symptom reductions are reported with NAC use in pediatric case reports.<sup>6,7</sup> Our cases tolerated and responded well to NAC monotherapy. This report shows that NAC may be a safe choice in

treatment of pediatric trichotillomania. Pharmacologic modulation of the glutamate system may prove to be useful in the control of other obsessive compulsive and related behaviors.

## Acknowledgments

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## Conflicts of interest

Author declares there are no conflicts of interest towards the article.

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