

Childhood Trichotillomania: A Case and a Review of the Available Evidence-Based Pharmacologic Therapies

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1. Abstract

Background: Trichotillomania is a self-induced psychocutaneous dermatosis that is considered an impulse control disorder associated with obsessive-compulsive features. The disorder is characterized alopecia caused by repetitive pulling of own hair which cause irregular shape areas, partially devoid of hair. Treatment of the condition is generally unsatisfactory, because the condition is commonly resistant to treatment and relapse is common.

Patients and methods: The case of girl with persistent alopecia of several months despite several treatments by several dermatologists was studied. The available evidence-based pharmacologic therapies that can be useful for the child's condition was reviewed.

Results: A thirteen-year old girl was referred to pediatric psychiatry clinic at the Children Teaching Hospital of Baghdad Medical City because of persistent alopecia of several months despite several treatments by several dermatologists. The parents didn't give clues to any a psychosocial stress in the family. Although

the parents were finding at several occasions tufts of hair in the bed of girl when awakening her at the morning, they were surprised to learn that her condition is self-induced. The girl was rather shy and denied pulling her hair. Examination of her scalp showed irregular shape areas, partially devoid of hair suggesting trichotillomania. The patient was not from Baghdad and there was no pediatric psychiatry service in the province where she came from. It was not possible to the girl a cognitive behavioral therapy in a busy tertiary center, nor was this convenient to her family.

The need for a pharmacologic therapy was clearly demanded.

Review of the available research evidence suggests that monotherapy of trichotillomania is not consistently effective and combination of therapies is more likely to be successful.

Conclusion: Trichotillomania remains a challenging psychiatric condition with no first-

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Received Date: November 27, 2020; **Accepted Date:** December 5, 2020; **Published Date:** December 10, 2020

line medications universally approved. The available evidence suggests that monotherapy of trichotillomania is not consistently effective and combination of therapies is more likely to be successful. The combination of a safer antidepressant, clomipramine with a safer neuroleptic, risperidone with or without the addition of N-acetylcysteine represents the current evidence-based recommendation for the pharmacologic treatment of childhood trichotillomania.



Figure 1: François Henri Hallopeau, a French dermatologist (January, 17, 1842-March, 20, 1919).

2. Key Words: Childhood trichotillomania; Pharmacologic treatment; Evidence-based recommendation

3. Introduction

Trichotillomania is a self-induced psychocutaneous dermatosis that is considered an impulse control disorder associated with obsessive-compulsive features. The disorder was

known during the 19th century. In 1889, François Henri Hallopeau, a French dermatologist called the condition “trichotillomania”. He derived the term from three Greek words; tricho (hair), tillo (to pull) and mania (madness).

The disorder is characterized alopecia caused by repetitive pulling of own hair which cause irregular shape areas, partially devoid of hair. The condition is commoner in girls and a psychosocial stress in the family is sometimes identified. In many cases, parents of children with trichotillomania consult initially a dermatologist when the child denies hair pulling [1-5]. Treatment of the condition is generally unsatisfactory, because the condition is commonly resistant to treatment and relapse is common [6-24].

4. Patients and methods

The case of girl with persistent alopecia of several months despite several treatments by several dermatologists was studied. The available evidence-based pharmacologic therapies that can be useful for the child’s condition was reviewed.

5. Results

A thirteen-year old girl who was doing well at first grade intermediate school was referred to pediatric psychiatry clinic at the Children Teaching Hospital of Baghdad Medical City because of persistent alopecia of several months despite several treatments by several dermatologists. The parents didn’t give clues to any a psychosocial stress in the family. Although the parents were finding at several occasions tufts of hair in the bed of girl when awakening her at the morning, they were surprised to learn that her condition is self-induced. The girl was rather shy and denied pulling her hair. Examination of her

scalp showed irregular shape areas, partially devoid of hair suggesting trichotillomania (Figure-2).



Figure 2: The scalp showed irregular shape areas, partially devoid of hair suggestive of trichotillomania.

The patient was not from Baghdad and there was no pediatric psychiatry service in the province where she came from. It was not possible to the girl a cognitive behavioral therapy in a busy tertiary center, nor was this convenient to her family. The need for a pharmacologic therapy was clearly demanded.

Review of the relevant literature revealed that clomipramine was the first medication reported to be effective as a pharmacological treatment of trichotillomania (Swedo et al, 1989) [6]. Fluoxetine, another antidepressant was also found to be useful in the treatment of adult patients [11, 12] and also children [13]. However, the reports of Bhatia, Shome and Gautam (1993) [14] and Yektaş & Tufan (2017) [15] suggested that it is better to avoid using fluoxetine treatment of trichotillomania.

Haloperidol was the first neuroleptic to have benefit in the treatment of trichotillomania in 1991 [16]. Van Ameringen et al (1999) and Epperson et al (1999) suggested that the addition of neuroleptics to antidepressant medications and to naltrexone can improve the treatment of trichotillomania [17-19].

N-acetylcysteine was also found to be beneficial in the treatment of adults and children with trichotillomania [20-23].

The available evidence suggests that monotherapy of trichotillomania is not consistently effective and combination of therapies is more likely to be successful [17-19, 24].

6. Discussion

Childhood alopecia can be associated with high concern, frustration and anxiety [25]. Treatment of the condition is generally unsatisfactory, because the condition is commonly resistant to treatment and relapse is common. The need for a pharmacologic therapy is clearly demanded.

Review of the relevant literature revealed that clomipramine was the first medication reported to be effective as a pharmacological treatment of trichotillomania (Swedo et al, 1989). Swedo et al reported a 10-week double-blind, crossover trial of clomipramine which is tricyclic antidepressant with selective anti-obsessional effects and desipramine, a standard tricyclic antidepressant. The study enrolled 13 female patients with severe trichotillomania. Treatment with clomipramine was associated with significantly greater improvement in symptoms than desipramine. Patients treated with clomipramine reported that their compulsion was less and they were more able to resist the urge to pull out their hair [6]. Pollard et al (1991) treated 4 patients having trichotillomania with clomipramine and treatment was initially associated with dramatic reductions in symptoms. However, three of the four patients relapsed completely at 3-month follow-up. The fourth patient experienced temporary relapse for about two weeks [7].

Riley et al (1993) reported the use of clomipramine in the treatment of childhood trichotillomania [8].

Takahashi, Shimanaka and Koyama (1996) and Takei (2000) also reported that clomipramine of trichotillomania was associated with improvement [9,10].

Takei (2000) described the treatment of a 17-year old girl with trichotillomania since the age of 15 years.

The patient was initially treated with supportive psychotherapy for eight months without improvement of her symptoms. Thereafter, she was treated with clomipramine at 30 mg daily and improvement was reported after two weeks. She became able to resist the urge to pull out her hair. After four months of treatment, the patient was able to return to school [10].

Fluoxetine, another antidepressant was also found to be useful in the treatment of adult patients [11, 12] and also children [13].

However, the reports of Bhatia, Shome and Gautam (1993) [14] and Yektaş & Tufan (2017) [15] suggested that it is better to avoid using fluoxetine treatment of trichotillomania. Bhatia, Shome and Gautam (1993) reported that a patient with trichotillomania responded to fluoxetine, but developed drug induced alopecia. Yektaş and Tufan (2017) reported a female patient with trichotillomania who experience an increase in her symptoms after fluoxetine use [15].

Haloperidol was the first neuroleptic to have benefit in the treatment of trichotillomania [16]

Van Ameringen et al (1999) treated 9 patients with trichotillomania with haloperidol. Six patients were unresponsive to antidepressant medications and haloperidol was added to their

treatment. Three patients were treated with haloperidol.

Eight of nine patients responded to haloperidol treatment, with seven experiencing complete or near complete cessation of hair pulling [17].

Epperson et al (1999) emphasized that the use of a low-dose typical neuroleptic, pimozide was found to be beneficial in some patients with trichotillomania refractory to antidepressant medications.

They suggested that risperidone possibly had more benign acute and long-term side effects. Epperson et al added risperidone 0.5 to 3 mg daily to the treatment of three patients with trichotillomania refractory to antidepressant medications.

All three patients had a vigorous reduction in hair pulling [18].

Van Ameringen et al (1999) and Epperson et al (1999) suggested that the addition of neuroleptics to antidepressant medications can improve the treatment of trichotillomania [17,18].

Oravec and Štuhec (2014) reported the successful treatment of a patient having trichotillomania with risperidone and naltrexone [19].

N-acetylcysteine was also found to be beneficial in the treatment of adults and children with trichotillomania [20-23].

Grant, Odlaug and Kim (2009) reported a twelve-week, double-blind, placebo-controlled trial which included 50 adult patients with trichotillomania (45 females and 5 males). Treatment group received N-acetylcysteine 1200-2400 mg daily for 12 weeks. Treatment was associated with significantly higher reductions in hair-pulling symptoms and without the

occurrence of adverse effects. The glutamatergic effect of N-acetylcysteine demonstrated statistically significant reductions in trichotillomania symptoms. No events occurred in the N-acetylcysteine group and N-acetylcysteine was thought to be responsible for the control of compulsive behaviors in this condition.

Rodrigues-Barata et al (2012) reported the successful treatment of two patients having trichotillomania with N-acetylcysteine [21]. Özcan and Seçkin (2016) report the successful treatment two patients with trichotillomania with oral N-acetylcysteine 1200 mg daily. The first patient was a 30-year-old female and the second patient was a 14-year-old girl. Hair pulling lessened within 2 months and 2 weeks of initiating treatment in the first and second patient, respectively. Complete hair regrowth occurred after 4 and 6 months of treatment in the first and second patient, respectively. No side-effects were reported [22]. Barroso et al (2017) reported a patient with trichotillomania who was treated with N-acetylcysteine, a glutamate modulating agent with an established tolerance and safety profile. The patient experienced an excellent response to N-acetylcysteine [23].

However, Bloch et al (2013) studied the use of N-Acetylcysteine in the treatment of pediatric trichotillomania in a randomized, double-blind, placebo-controlled add-on trial. They found no significant difference between N-acetylcysteine and placebo [24].

7. Conclusion

Trichotillomania remains a challenging psychiatric condition with no first-line medications universally approved. The available evidence suggests that monotherapy of

trichotillomania is not consistently effective and combination of therapies is more likely to be successful. The combination of a safer antidepressant, clomipramine with a safer neuroleptic, risperidone with or without the addition of N-acetylcysteine represents the current evidence-based recommendation for the pharmacologic treatment of childhood trichotillomania.

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Citation: Aamir Jalal Al-Mosawi. Childhood Trichotillomania: A Case and a Review of the Available Evidence-Based Pharmacologic Therapies. SunKrist J Psychiatry Ment Health. 2020; 2: 1006.

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