International Journal of Contemporary Pediatrics
Sathe H et al. Int J Contemp Pediatr. 2016 Nov;3(4):1284-1287
http://www.ijpediatrics.com
pISSN 2349-3283 | eISSN 2349-3291
DOI: http://dx.doi.org/10.18203/2349-3291.ijcp20163661

Original Research Article

Childhood onset trichotillomania: a retrospective analysis of 78 cases visiting tertiary general hospital

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Received: 25 June 2016
Accepted: 05 August 2016

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ABSTRACT

Background: Trichotillomania (TTM) is an irresistible urge to pull one's own hair and is a relatively common cause of childhood alopecia.
Methods: This is a retrospective chart review of 78 children diagnosed with TTM from September 2009 to September 2014 done in psychiatry department of a tertiary general hospital of Mumbai, India.
Results: The scalp was found to be the main site for hair pulling in most of them. Other comorbid psychiatric illnesses seen were attention deficit hyperactivity disorder (ADHD), conduct disorder and oppositional defiant disorder (ODD). Commonly prescribed medications were selective serotonin reuptake inhibitors (SSRIs) like fluoxetine and escitalopram. Next drug widely used were second generation antipsychotics like aripiprazole.
Conclusions: This is the largest collection of childhood TTM cases published so far in Asia at least to the best of our knowledge.

Keywords: Alopecia, Childhood, Comorbidity, Trichotillomania

INTRODUCTION

Trichotillomania (TTM) is an irresistible urge to pull one's own hair and this term was first coined in 1889 by French dermatologist Hallopeau. He had described a young man who pulled out his hair in tufts.[1] The word is derived from the Greek thrix (hair), tillein (to pull), and mania (madness).[2] Arising primarily in children and adolescents, TTM is a relatively common cause of childhood alopecia.[3]

The 4th edition of the diagnostic and statistical manual of mental disorders (DSM-IV) included TTM under other disorders of "impulse control" such as pyromania, kleptomania, and pathologic gambling.[4] These conditions share in common a sense of tension before performing a given act and gratification and/or relief after completion. However, many patients with TTM, especially children, deny this tension/gratification phenomenon and therefore do not meet DSM-IV criteria for the disorder.[3] Thus it was suggested that TTM be included under anxiety disorders, because it shares some obsessive-compulsive features. In accordance with these findings the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) included TTM under obsessive compulsive and related disorders.[5]

This article presents our observations of 78 children who presented with TTM and reviews the literature on TTM in children.

METHODS

This was a retrospective chart review of children diagnosed with TTM from September 2009 to September 2014 done in psychiatry department of a tertiary general hospital of Mumbai. The patients were diagnosed based on DSM-IV TR. The study was approved in the

departmental review meeting. Demographic data and the following specifics were collected: duration of hair-pulling, site(s) of hair loss and associated psychiatric comorbidities, family history of psychiatric illness and treatment rendered.

RESULTS

A total of 78 children, ranging from 6 to 15 years old (mean: 9.7 years) with an equal gender ratio, were diagnosed with TTM over a 2-year period. The duration of hair-pulling episodes ranged from less than 5 min per day (n = 3, 3.84%) to 3 hours per day (n = 1, 1.84%). However, in majority of them the duration of hair pulling episode was 31 to 60 minutes (n = 26, 33.33%).

The scalp was found to be the main site for hair pulling in most of them: 35 patients (44.87%) demonstrating hair pulling from one scalp site and 26 patients (33.33%) demonstrated hair pulling from 2 scalp sites. Only 12 (15.38%) patients had 1 non-scalp site and 3 (3.84%) patients had 2 non-scalp sites as the hair pulling sites. The most common sites of the scalp affected were frontal and vertex, followed by parietal, occipital and temporal regions (Table 1).

Table 1: Sites of hair pulling.

Site of hair pulling	No. of patients (n=78)
One scalp site	35 (44.87%)
Two scalp sites	26 (33.33%)
One non-scalp site	12 (15.38%)
Two non-scalp sites	3 (3.84%)
Three sites or more sites	2 (2.57%)

Frequency of comorbid other psychiatric disorders based on DSM-IV TR criteria using a clinical interview was assessed. Attention deficit hyperactivity disorder (ADHD) was found to be the most common psychiatric comorbidity (44.44%). Others like oppositional defiant disorder (ODD) (12.7%), conduct disorder (6.34%) and social anxiety disorder (4.76%) were also seen. 9.52% children had both ODD and conduct disorder. 15 children did not have any other comorbidity.

Family history of psychiatric disorder based on clinical interview was assessed (Table 3). ADHD and depression were the most common psychiatric disorders seen.

Alopecia was quite evidently noted in most of the patients with most of them showing moderate loss (loss visible on inspection of area) and 50% loss of brows or lashes or bald spots on scalp or body parts (Table 2).

Table 2: Severity of alopecia caused by hair pulling.

Severity of the alopecia caused by hair pulling	(n = 78)
No loss of hair	0 (0%)
Negligible loss (not visible)	2 (2.56%)
Mild loss (seen only if area is pointed out)	13 (16.66%)
Moderate loss (loss visible on inspection of area)	24 (30.78%)
50% loss of brows or lashes or bald spots on scalp or body parts	29 (37.18%)
75% loss of brows or lashes or bald spots on scalp or body parts	8 (10.25%)
Loss of almost all hair of brows or lashes or scalp or body parts	2 (2.56%)
Total loss of hair on brows or lashes or scalp or body part	0 (0%)

Table 3: Psychiatric disorder in family members.

Disorder	Mother or mother's family	Father or father's family	Siblings	Any other relative	Total
Depression	5	4	0	4	13
Schizophrenia	1	1	0	3	5
Bipolar disorder	1	1	0	2	4
OCD	2	3	0	2	7
ADHD	3	3	9	5	20
Anxiety disorder	2	2	1	2	7
Tic disorder	2	2	1	3	8
Intellectual disability	1	0	1	2	4
Autism spectrum	0	0	1	1	2

Various modalities of treatment were used in these patients: pharmacotherapy and psychotherapy. Among pharmacotherapy, selective serotonin reuptake inhibitors (SSRIs) were widely prescribed and that too fluoxetine (51%). Other SSRIs used were escitalopram (17%) and fluovoxamine (7%). In few patients, second generation antipsychotics like aripiprazole (14%), olanzapine (3%)

and risperidone (3%) were also used. Naltrexone was given in 5% of children.

Behavior therapy in form of habit reversal and self-monitoring were also used in few patients. Psychotherapy in form of group therapy or cognitive therapy was used. However most of them benefitted by combination of pharmacotherapy and behavior therapy (n = 59, 75.64%)

DISCUSSION

This is the largest collection of childhood TTM cases published so far in Asia at least to the best of our knowledge. TTM occurs with a prevalence rate of 1 to 3.5% and prevalence of non-grooming (e.g. tweezing eyebrows) hair pulling of up to 6.5% among community adults.[6,7] Rates of TTM are higher in children than in adults.[8,9] The common sites of pulling hair are scalp, eyelashes and eyebrows, and pubic hair among adults.[10] Age of onset of TTM is usually in childhood with mean age of onset at 9-10 years.[11] Present study also found similar results with mean age of patients being 9.7 years.

Coming to etiology of TTM, various reasons have been cited. A study found childhood trauma and emotional neglect to be associated with TTM.[12] Association with changes in residence, separation from friends, problems in school, separation from parents and sibling rivalry have also been found.[13] Some have considered hair-pulling as stress- coping behavior.[14] In older adults it can be triggered by visual (e.g. seeing grey hair), tactile (i.e. feeling a coarse hair), situational (i.e. watching television, talking on the phone), or emotional cues (i.e. boredom, anxiety, depression).[15,16]

Study suggests that about 70% of children with TTM may also meet diagnostic criteria for other psychiatric diagnoses.[17] Present study found other psychiatric comorbidities in 80.76% of sample. Majority of them had ADHD, followed by ODD and conduct disorder.

Psychiatric comorbidity is known to be frequent in trichotillomania like major depression, generalized anxiety disorder, OCD, other anxiety disorders, eating disorders and substance abuse.[2,18] A study found that 39.1% of children with TTM presented with a comorbid psychiatric diagnosis. Generalized anxiety (13.0%), social phobia (8.7%), OCD (6.5%), ADHD (8.7%), and oppositional defiant disorder (6.5%) were among the most common diagnoses.[11]

Similarly, an internet-based study found that 38.3% of children had been previously diagnosed with at least one other mental health disorder. Among these diagnoses, anxiety disorders (24.1%), mood disorders (18.8%), and ADHD (16.5%) were the most common.[19]

Treatment options include drugs like clomipramine, selective serotonin reuptake inhibitors (SSRIs), N-Acetyl cysteine and naltrexone. In psychotherapy, habit reversal training and cognitive behavior therapy play role.[10,20]

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Sathe H, Karia S, Narankar C, Desousa A. Childhood onset trichotillomania: a retrospective analysis of 78 cases visiting tertiary general hospital. Int J Contemp Pediatr 2016;3:1284-7.