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CASE REPORT

Atomoxetine-Induced Spontaneous Seminal Discharge in Adult ADHD With Trichotillomania: Case Report and Literature Review

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Abstract: Trichotillomania disorder is a psychiatric condition characterized by recurrent hair-pulling behaviors that result in substantial distress or impairment. Comorbidity between trichotillomania and adult attention-deficit/hyperactivity disorder (ADHD) is challenging, and an increasing body of evidence suggests a neurobiological overlap between the two conditions, particularly in the areas of executive functioning and inhibitory control. Atomoxetine is a selective norepinephrine reuptake inhibitor approved for ADHD by the Food and Drug Administration (FDA). It has been recommended for ADHD patients comorbid with anxiety disorders. Although most people can tolerate atomoxetine, there have been reports of uncommon side effects, such as sexual problems. This case report describes a 37-year-old man diagnosed initially with trichotillomania and generalized anxiety disorder and started on fluoxetine 20 mg for six weeks with substantial symptoms improvement of both disorders. Unfortunately, the patient exhibited increased impulsivity and irritability, which hindered his daily life functioning. Given this paradoxical response, fluoxetine was terminated. A multisession reassessment revealed lifelong ADHD with inattention, disorganization, emotional dysregulation, and impulsiveness. Consequently, Atomoxetine initiation/titration (25→75 mg) was attempted; however, he experienced spontaneous seminal discharge 6 weeks later. The assessment and workup included a normal urologic exam. We systematically evaluated potential infectious, inflammatory, and endocrine causes, checking testosterone, prolactin, LH/FSH, TSH, and urinalysis, all of which fell within the reference ranges. Subsequently, Atomoxetine was gradually withdrawn, and this rare side effect, seminal discharge, resolved within five days post-cessation of the medicine. After three months of monitoring, we re-evaluated ADHD and trichotillomania, adjusted the therapy, and observed that there was no recurrence of symptoms. This instance shows the importance of careful monitoring for rare side effects in people with complex psychiatric comorbidities.

Keywords: ADHD, trichotillomania, atomoxetine, seminal, strattera

Introduction

Trichotillomania, or hair-pulling disorder, is a psychological condition characterized by an uncontrollable compulsion to extract one's hair, resulting in significant hair loss and considerable anxiety or difficulties in everyday functioning.[1] Historically, obsessive-compulsive spectrum disorders were believed to be associated with this syndrome. A recent study indicates a potential association with disorders characterized by impulsive and attention deficits, such as attention-deficit /hyperactivity disorder (ADHD).[2] An increasing number of clinical and research settings has acknowledged the co-occurrence of trichotillomania and ADHD.[3] Both disorders exhibit deficits in inhibitory control, alterations in reward processing, and general executive dysfunction, indicating the presence of common disruptions in the fronto-striatal neurocircuitry.[4–6] Treatment strategies present significant challenges and frequently necessitate personalized, multimodal interventions.

Atomoxetine, a non-stimulant medication for ADHD, was approved by the Food and Drug Administration (FDA) in 2002. It has been shown to be effective in alleviating ADHD symptoms in patients with co-occurring anxiety disorder: in one study, anxiety severity was not exacerbated and, in some cases, was even reduced.[7] Atomoxetine is often well-

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tolerated; nevertheless, it has been associated with sexual dysfunction, including erectile dysfunction and ejaculatory abnormalities, in adult males undergoing treatment for ADHD, albeit seldom.[8,9] Spontaneous seminal discharge has not been frequently documented in adult males receiving atomoxetine. This article details a compelling case of a 37-year-old guy diagnosed with both trichotillomania and ADHD, who experienced spontaneous seminal discharge upon the initiation of atomoxetine, which recovered spontaneously upon discontinuation of the medication.

Case Presentation

A 37-year-old male attorney presented to the psychiatric outpatient clinic of Imam Mohammad ibn Saud Islamic Medical Center, reporting an inability to suppress the compulsion to pluck hair from his beard, particularly during stressful moments. The frequency of these episodes had increased over the past two years, and they were accompanied by increasing anxiety, restlessness, and feelings of remorse. Moreover, he possesses no prior psychiatric, medical or family history of mental illness, and he enjoys a positive relationship with his family, who are mostly supportive. He refuted any previous history of prescription medication abuse or illegal drug use. He is an unmarried male who has never engaged in a sexual relationship. Upon examination of his mental status, he appeared to be of his stated age, was slim, cooperative, and well-groomed, with minimal hair on his garments, particularly beneath his jaw. His mood was anxious, accompanied by a reactive affect. He does not possess any death wishes and has denied experiencing suicidal thoughts. No psychotic symptoms were detected. He exhibited a tendency to become easily distracted during the interview while demonstrating a good insight of his case. He satisfies the DSM-5 criteria for generalized anxiety symptoms and trichotillomania.[1]

Fluoxetine 20 mg was administered daily as his initial treatment. Significant improvements in both anxiety and hair-pulling behaviors were observed over a six-week period. Unfortunately, after that, the patient showed increased impulsivity and irritability, which negatively impacted his professional and personal life. Given this paradoxical reaction, fluoxetine was discontinued. A comprehensive evaluation performed across several sessions revealed chronic inattention, disorganization, emotional dysregulation, and impulsivity as persistent issues since childhood. Nonetheless, the ADHD diagnosis was confirmed using structured clinical interviews, clinician-administered rating scales such as the Barkley Deficits in Executive Functioning Scale (BDEFS),[10] and standardized tools such as the Adult ADHD Self-Report Scale (ASRS).[11]

The patient was initiated on extended-release methylphenidate (Concerta) and titrated to a dosage of 54 mg. The result was a significant rise in the tendency to remove hair, although his distractibility and attention improved. He was unable to increase the dosage because of significant insomnia and emotional instability, and the medication was ceased.

Atomoxetine was initiated at a dosage of 25 mg and gradually increased by 25 mg weekly over three weeks, resulting in a maximum dosage of 75 mg. The patient was informed about potential adverse effects and given the opportunity to contact the clinic should they become intolerable. The patient's initial tolerance of the medication resulted in significant improvements in symptoms, such as reduced anxiety, distractibility, impulsivity, delaying daily tasks, and improved attention and organization, in addition to reduced hair-pulling. Recurrent episodes of involuntary seminal discharge were reported by the patient by the sixth week of atomoxetine treatment. The patient reported no sensory disturbances, sexual arousal, or stimulation prior to the onset of these symptoms. The fluid was characterized by a viscous, whitish consistency and a distinctive seminal fragrance. The patient categorically denied the presence of sexual fantasy, especially nocturnal, or any increase in libido. During the urological evaluation, the assessment (history, examination, and urinalysis) revealed no indications of prostatitis or infection. The endocrine testing, including TSH, LH/and urinalysis, free testosterone, and repeated prolactin, fell within the reference values (Table 1).

Neurological examination revealed no focal abnormalities; the sleep history did not indicate parasomnias or nocturnal emissions. A screening of concomitant drugs and chemicals revealed no agents linked to ejaculatory dysfunction. The most plausible explanation for those symptoms is that they are a potential side effect of atomoxetine, as they began concurrently with the initiation of the medication. The patient requested to discontinue atomoxetine, as it was negatively impacting his social self-esteem and requiring him to change clothes frequently. We have begun to reduce the dosage of Atomoxetine by 25 mg on a weekly basis until it is discontinued. The seminal discharge completely ceased within five days after the dose of atomoxetine was reduced and subsequently discontinued. No recurrence of spontaneous seminal discharge was reported during the three-month follow-up. We have determined that this is a rare side effect of atomoxetine that is infrequently reported. However, the symptoms of ADHD and trichotillomania have gradually

Table 1 Laboratory Workup

Test	Sample Type	Interpretation	Reference Range (lab)	Units	Date (YYYY-MM-DD)	Result
CBC (WBC count)	8		4-11	x10^3	08/01/2025	Normal
Testosterone	3.2	Male age Range (31yr-44yr)	1.98–6.79	ng/mL	08/01/2024	Normal
Prolactin	4.7	Male	2.64–13.13	ng/mL	08/01/2024	Normal
LH	4.2	Male	1.24–8.62	mIU/mL	08/01/2024	Normal
FSH	8	Male	1.27–19.26	mIU/mL	08/01/2024	Normal
TSH	0.65	Male	0.34–5.6	uIU/mL	08/01/2024	Normal
Urinalysis (summary)	Yellow colour, clear, no blood, protein, leukocyte, urobilinogen or ketone. PH=5.5				08/01/2024	No abnormality

Abbreviations: NR = not reported; CBC = complete blood count; LFT/KFT = liver/kidney function tests; UDS = urine drug screen.

reemerged and begun to adversely affect his daily life. After a thorough discussion with the patient, he consented to resume and maintain the methylphenidate at a reduced dosage of 36 mg daily, which led to a partial improvement in his ADHD symptoms. Furthermore, cognitive behavioral therapy was promoted as an effective treatment for trichotillomania (Table 2).

Table 2 Timeline of Symptoms, Treatments, and Outcomes

Time Period	Intervention / Event	Symptoms / Clinical Findings	Outcome / Response
Baseline (Initial presentation)		Anxiety, hair-pulling (trichotillomania), inattention, emotional dysregulation, impulsivity.	Diagnostic evaluation initiated.
Week 0–6	Fluoxetine 20 mg/day	Anxiety and hair-pulling improved significantly.	Improved mood and impulse control.
After 6 weeks	Continued Fluoxetine	Work and interpersonal relationships are adversely affected by elevated levels of impulsivity and irritability.	Fluoxetine was discontinued because of paradoxical behavioural deterioration.
Weeks 6–10	Comprehensive ADHD assessment	Persistent inattention, disorganization, emotional dysregulation, impulsivity confirmed since childhood.	ADHD diagnosed clinically and by using BDEFS and ASRS scales.
Week 10–16	Methylphenidate (Concerta) titrated to 54 mg/day	Improved attention and distractibility; marked worsening of hair-pulling; significant insomnia and emotional instability.	Medication discontinued due to adverse effects.
Week 16–19	Atomoxetine initiated (25 mg → 75 mg over 3 weeks)	Improved anxiety, impulsivity, task initiation, organization, and reduced hair-pulling.	Marked symptomatic improvement.
Week 22 (6th week on Atomoxetine)	Continued Atomoxetine 75 mg/day	Recurrent involuntary seminal discharge without sexual arousal or nocturnal stimulation.	Urological and endocrine evaluations normal (TSH, LH/FSH, free testosterone, prolactin, urinalysis).
Week 23–24	Gradual Atomoxetine taper (−25 mg/week)	Reduction of adverse symptoms after dose reduction.	Complete cessation of seminal discharge within 5 days after discontinuation.

(*Continued*)

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Table 2 (Continued).

Time Period	Intervention / Event	Symptoms / Clinical Findings	Outcome / Response
Follow-up (3 months post-discontinuation)	No pharmacological treatment	No recurrence of seminal discharge; maintained improvement in attention and impulse control with non-pharmacological management.	Sustained remission of sexual side effect; reemerging of ADHD and Trichotillomania symptoms
Week 28 - and afterward	Methylphenidate (Concerta) titrated to 36 mg/day	ADHD symptoms exhibit a partial response. Trichotillomania persisted in its current state.	Improvement of ADHD symptoms. Psychotherapy referral was done for trichotillomania treatment.

Nevertheless, the patient provided a written informed consent for the publication of this case report, and any accompanying images and at Imam Mohammad ibn Saud Islamic Medical Center approval was not required to publish the case details.

Discussion

To our knowledge, this represents the fourth documented case of spontaneous seminal discharge linked to the use of atomoxetine. The uniqueness of this case arises from the comorbidity of adult ADHD and trichotillomania, the prompt evaluation to rule out genitourinary and endocrine causes, the timeline for dose titration, and the swift resolution following discontinuation, along with the patient-centred implications for adherence and counselling. Atomoxetine is frequently prescribed for ADHD, particularly in individuals with concomitant anxiety or impulse-control disorders and is generally well-tolerated. However, there have been reports of sexually adverse effects, including delayed ejaculation and a reduction in libido.[9] A small number of case reports has documented spontaneous ejaculation induced by atomoxetine in both adults and adolescents. We identified three previous reports of atomoxetine-related spontaneous ejaculation in adolescents and adults, occurring shortly after treatment commencement or dose escalation, and resolving upon termination, comparable with our patient (Table 3).

This phenomenon occurs in the absence of sexual arousal, even though it is exceedingly rare and underreported. In general, symptoms subside when the patient ceases to take the substance.[12–14] The primary mechanism of atomoxetine is the selective inhibition of the norepinephrine transporter, leading to increased norepinephrine and, indirectly, dopamine levels in the prefrontal cortex, which aligns with sympathetic-type activation in the prefrontal–locus coeruleus circuitry.[15] Seminal emission is a spinal sympathetic reflex physiologically mediated through α-adrenergic pathways.[16] Atomoxetine's suppression of norepinephrine reuptake may potentially elevate noradrenergic tone and trigger emission; however, other mechanisms such as autonomic dysregulation, stress-induced arousal, and sleep phenomena are also conceivable.[12–16] The temporal correlation between the initiation/titration of atomoxetine and the resolution upon withdrawal in documented cases substantiates a drug-related theory; nonetheless, causality remains unverified.[12–14] Both venlafaxine and reboxetine are norepinephrine reuptake inhibitors, and they have been associated with sexual adverse effects such as delayed ejaculation, erectile dysfunction, and, in rare cases, spontaneous seminal discharge.[17,18] The overlapping characteristics of impulsivity, compulsive behaviors, and anxiety present substantial clinical challenges in the management of individuals with both ADHD and trichotillomania. Although selective norepinephrine reuptake inhibitors are frequently prescribed for trichotillomania, particularly in the presence of concomitant anxiety or mood symptoms, clinical observations indicate that they may inadvertently exacerbate impulsive traits in patients with ADHD. In certain instances, this excessive impulsivity may contribute to an exacerbation of hair-pulling behavior. Careful medication selection is advised when impulsivity and compulsivity traits coexist. The coexistence of impulsivity and compulsive traits is most likely the result of serotonergic suppression of dopaminergic tone. Conversely, atomoxetine has demonstrated therapeutic efficacy in these comorbid presentations.[19] Nonetheless, proactive discussion with patients and vigilant oversight are essential, especially in cases of long-term treatment, due to rare side effects, such as spontaneous seminal discharge.

Table 3 Documented Cases of Atomoxetine-Related Spontaneous Ejaculation (Comparison)

Author (year)	Country/ setting	Age/ Sex	Comorbidity	Atomoxetine Dose/ Titration	Latency to Onset	Clinical Features	Diagnostic Workup	Management	Outcome	Re-challenge	Reference
MacDonald et al, 2019	Australia (QLD)	24/M	ADHD; polysubstance use	Titrated to 80 mg/day	Rapid after start (reported weeks later)	2–3/day; with orgasmic sensation; dose-dependent	Not reported	Citalopram 40 mg ↓ frequency; atomoxetine tapered and stopped	Immediate resolution after stopping	Not reported	[12]
Yaylacı et al, 2020	Turkey	16/M	ADHD (adolescent)	Not reported	Day 3 after initiation	Spontaneous ejaculation; further details NR	Not reported	Atomoxetine discontinued	Resolved after discontinuation	Not reported	[13]
Rizvi et al, 2022	USA	39/M	ADHD only	40 mg → 80 mg in 1 week	2 days; frequency ↑ at 80 mg/day	2–3/day; no erection or orgasm; while awake	Urology normal; CBC/LFT/KFT/TSH normal; UDS negative	Stopped atomoxetine; switched to methylphenidate ER 18 mg	Resolved within 5 days; no recurrence on methylphenidate	Not attempted	[14]
Our Report	Saudi Arabia (Riyadh)	37/M	ADHD + trichotillomania; prior GAD	25 mg → 75 mg over 3 weeks	By week 6	Seminal discharge without arousal/ stimulation	Urology excluded prostatitis/infection; testosterone and prolactin normal	Tapered and discontinued atomoxetine	Resolved in 5 days; no recurrence at 3 months	Not attempted	

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Conclusion

In conclusion, atomoxetine (Strattera) is still an effective, clinically valuable and evidence-based treatment option for adult ADHD, particularly where the concomitant anxiety and compulsive spectrum symptoms are an issue. This case demonstrates the efficacy of atomoxetine as a non-stimulant alternative for adults with ADHD, especially in instances where stimulant medications are contraindicated or not well tolerated. The agent is typically well tolerated; however, rare adverse effects, including spontaneous seminal discharge, may occur and require clinical attention due to their potential effects on adherence and patient comfort. Basic clinical assessment, psychoeducation about potential side effects, and individualized monitoring are essential for effective treatment planning in complex cases. Clinical outcomes in multi-faceted psychiatric cases are significantly enhanced by the implementation of such an anticipatory and patient-specific strategy.

Author Contributions

The author made significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

Disclosure

The author declares that no financial support was received from any organization for the submitted work. The author has disclosed that no financial relationships exist or have existed within the past three years with any organizations that may have an interest in the submitted work. The author has stated that there are no additional relationships or activities that may have influenced the submitted work.

References

1. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th. American Psychiatric Association Publishing; 2022.
2. Grant JE, Chamberlain SR. Trichotillomania. *Am J Psychiatry*. 2016;173(9):868–874. doi:10.1176/appi.ajp.2016.15111432
3. Chesivoir EK, Valle S, Grant JE. Comorbid trichotillomania and attention-deficit hyperactivity disorder in adults. *Compr Psychiatry*. 2022;116:152317. doi:10.1016/j.comppsych.2022.152317
4. Grant JE, Peris TS, Ricketts EJ, et al. Reward processing in trichotillomania and skin picking disorder. *Brain Imaging Behav*. 2021;16(2):547–556. doi:10.1007/s11682-021-00533-5
5. Barkley RA. Behavioral inhibition, sustained attention, and executive functions: constructing a unifying theory of ADHD. *Psychol Bull*. 1997;121 (1):65–94. doi:10.1037/0033-2909.121.1.65
6. Rubia K, Cubillo A, Smith AB, Woolley J, Heyman I, Brammer MJ. Disorder-specific dysfunction in right inferior prefrontal cortex during two inhibition tasks in boys with attention-deficit/hyperactivity disorder compared to boys with obsessive–compulsive disorder. *Hum Brain Mapp*. 2009;31(2):287–299. doi:10.1002/hbm.20864
7. Geller D, Donnelly C, Lopez F, et al. Atomoxetine treatment for pediatric patients with attention-deficit/hyperactivity disorder with comorbid anxiety disorder. *J Am Acad Child Adolesc Psychiatry*. 2007;46(9):1119–1127. doi:10.1097/chi.0b013e3180ca8385
8. Camporeale A, Porsdal V, De Bruyckere K, et al. Safety and tolerability of atomoxetine in treatment of attention deficit hyperactivity disorder in adult patients: an integrated analysis of 15 clinical trials. *J Psychopharmacol*. 2014;29(1):3–14. doi:10.1177/0269881114560183
9. Camporeale A, Day KA, Ruff D, Arsenault J, Williams D, Kelsey DK. Profile of sexual and genitourinary treatment-emergent adverse events associated with atomoxetine treatment: a pooled analysis. *Drug Saf*. 2013;36(8):663–671. doi:10.1007/s40264-013-0074-2
10. Barkley RA, Murphy KR. The nature of executive function deficits in daily life activities in adults with ADHD and their relationship to performance on EF tests. *J Psychopathol Behav Assess*. 2011;33(2):137–158. doi:10.1007/s10862-011-9217-x
11. Kessler RC, Adler L, Ames M, et al. The World Health Organization adult ADHD self-report scale (ASRS): a short screening scale for use in the general population. *Psychol Med*. 2005;35(2):245–256. doi:10.1017/S0033291704002892
12. MacDonald T, Wimalaguna PS, Akosile W. Severe and treatment-resistant spontaneous ejaculation secondary to atomoxetine: case report. *Australas Psychiatry*. 2019;27(2):198–199. doi:10.1177/1039856218815746
13. Yaylacı F, Şahbudak B, Küçük Ö. Spontaneous ejaculation induced with atomoxetine. *Psychopharmacol Bull*. 2020;50(1):40–43. doi:10.64719/pb.4601
14. Rizvi A, Srinivas S, Jain S. Spontaneous ejaculation associated with atomoxetine. *Prim Care Companion CNS Disord*. 2022;24(3):21cr03136. doi:10.4088/pcc.21cr03136
15. Bymaster F. Atomoxetine increases extracellular levels of norepinephrine and dopamine in prefrontal cortex of rat: a potential mechanism for efficacy in attention-deficit/hyperactivity disorder. *Neuropsychopharmacology*. 2002;27(5):699–711. doi:10.1016/S0893-133X(02)00346-9
16. Müller A, Mulhall JP. Erection, emission, and ejaculation: mechanisms of control. In: Lipshultz LI, Howards SS, Niederberger CS editors. *Infertility in the Male*. Cambridge University Press; 2009:132–152. doi:10.1017/CBO9780511635656.010

17. Haberfellner E. Sexual dysfunction caused by reboxetine. *Pharmacopsychiatry*. 2002;35(2):77–78. doi:10.1055/s-2002-25025
18. Kennedy SH, Rizvi S. Sexual dysfunction, depression, and the impact of antidepressants. *J Clin Psychopharmacol*. 2009;29(2):157–164. doi:10.1097/JCP.0b013e31819c76e9
19. Adler LA, Liebowitz M, Kronenberger W, et al. Atomoxetine treatment in adults with attention-deficit/hyperactivity disorder and comorbid social anxiety disorder. *Depress Anxiety*. 2009;26(3):212–221. doi:10.1002/da.20549