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Ragged Nails and Repetitive Picking: A Case of Onychotillomania

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KEYWORDS

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ABSTRACT:

Onychotillomania is an uncommon and often underrecognized self-induced nail disorder within the body-focused repetitive behaviour spectrum, caused by recurrent picking or manipulation of the nail unit and resulting in chronic traumatic nail dystrophy. We report a 25-year-old software engineer who presented with a one-year history of progressively shortened, ragged fingernails associated with marked social embarrassment. He described compulsive nail picking during periods of occupational stress, particularly around work deadlines, often without full awareness until bleeding occurred. Examination showed multiple uniformly shortened, jagged fingernails with irregular free margins, mild periungual erythema and maceration, and minor cuticular tears, without pitting, Beau's lines, subungual debris, onycholysis, or secondary infection. Dermoscopy demonstrated splinter haemorrhages, irregular nail plate scaling, loss of proximal nail fold shine, and periungual telangiectasias, supporting chronic mechanical trauma rather than fungal or inflammatory nail disease. Potassium hydroxide mount and fungal culture were negative, and nail clipping histopathology showed parakeratosis without spongiosis or dermatophytes. Psychiatric evaluation based on DSM-5 criteria was consistent with a body-focused repetitive behaviour disorder, and the Hamilton Anxiety Rating Scale score was 18/56, indicating moderate anxiety. A diagnosis of onychotillomania was made. The patient was managed with habit reversal training, oral N-acetylcysteine 1200 mg daily, bitter nail lacquer, emollients, and psychiatric referral for cognitive behavioural therapy. At 8 weeks, approximately 60% nail regrowth with improved behavioural control was observed.

Introduction

Onychotillomania is an uncommon, probably underrecognized self-induced nail disorder in which patients repeatedly manipulate the nail unit by picking, pulling, or excessive manicuring, leading to chronic damage to the nail plate, nail bed, and periungual tissues.(1) Lee & Lipner places nail-picking behaviour within the body-focused repetitive behaviour spectrum; however, unlike trichotillomania and excoriation disorder, onychotillomania is not a separate DSM-5 diagnosis and is generally classified under other specified obsessive-compulsive and related disorder.(2) Clinically, the disorder may occur as a conscious act during stress, tension, boredom, or frustration, or as an automatic habit performed with limited awareness, which often delays presentation until visible dystrophy or social embarrassment develops.(3) Repeated mechanical trauma produces characteristic but nonspecific nail changes, including abnormally short and uneven nails, jagged free edges, absent or ragged cuticles, periungual erythema, nail-fold injury, and varying stages of healing around the affected digits. Onychoscopy has emerged as a particularly useful adjunct because it helps distinguish traumatic nail disease from fungal and inflammatory nail disorders; reported findings in onychotillomania include shortening of the nail plate, scaling and crusting of the nail folds, splinter or obliquely oriented haemorrhages, gray discoloration of the nail bed, and wavy lines. In the 36-case series by Maddy and Tosti, scales were seen in 94.4% of cases, absence of the nail plate in 83.3%, wavy lines in 69.4%, obliquely oriented haemorrhages in 63.9%, and crusts in 61.1%, underscoring the diagnostic value of dermoscopy in this setting.(4) Epidemiologic data are limited, which itself reflects the rarity and underreporting of this condition; in the study by Pacan et

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al. of 339 young adults, only 3 individuals had onychotillomania, corresponding to a prevalence of 0.9%.(5) Because nail disorders can substantially impair self-esteem, social interaction, and quality of life, prompt recognition of onychotillomania is important to avoid misdiagnosis, unnecessary antifungal or anti-inflammatory treatment, and missed psychiatric comorbidity. Against this background, the present case from the Department of Dermatology, Venereology and Leprosy, Sree Balaji Medical College and Hospital, Chennai, highlights the clinicodermoscopic and psychocutaneous correlates of stress-associated onychotillomania.

Case Report

A 25-year-old man employed as a software engineer presented with a one-year history of progressively shortened and ragged fingernails, which had caused considerable social embarrassment. He described a habitual tendency to pick at his nails during periods of occupational stress, especially near work deadlines, and stated that he was often unaware of the behaviour until it resulted in bleeding. There was no history of itching, pain, discharge, or recurrent paronychia. On clinical examination, multiple fingernails showed uniformly shortened, jagged nail plates with irregular free margins (Figure 1). Mild periungual erythema and maceration were present. There was no evidence of nail pitting, Beau's lines, subungual debris, or onycholysis. The cuticles showed minor tears, but no secondary infection was noted. The palms and soles were unaffected. Dermoscopy at ×10 magnification revealed splinter haemorrhages, irregular scaling of the nail plate, loss of the normal shine of the proximal nail fold, and periungual telangiectasias, without dermoscopic features suggestive of fungal infection or trachyonychia (Figure 2). These findings supported a diagnosis of chronic mechanical trauma due to repetitive nail picking rather than an infectious or primary inflammatory nail disorder. Potassium hydroxide mount and fungal culture were negative. Histopathological examination of nail clippings showed parakeratosis without spongiosis and no evidence of dermatophytes. Psychiatric evaluation based on DSM-5 criteria was consistent with a body-focused repetitive behaviour disorder characterized by recurrent nail picking associated with distress. The Hamilton Anxiety Rating Scale score was 18/56, indicating moderate anxiety. A diagnosis of onychotillomania was established. The patient was started on habit reversal training, including awareness cues and a competing response technique such as fist clenching. Oral N-acetylcysteine 1200 mg daily was prescribed to help improve impulse control. Additional measures included twice-daily application of bitter nail lacquer and emollients, and he was referred to psychiatry for cognitive behavioural therapy. At the eight-week follow-up, approximately 60% nail regrowth was noted, along with improved behavioural control.

Discussion

This case is clinically characteristic of onychotillomania, an uncommon and probably underrecognized nail-focused body-focused repetitive behaviour in which patients repetitively manipulate the nail plate, nail bed, or periungual tissue, producing bizarre nail morphology and secondary damage that often mimics primary nail disease.(1) The patient's reluctance to frame the behaviour as a disorder and his prominent social embarrassment are also typical, because shame, embarrassment, and limited awareness of the habit are well-recognized reasons why nail picking is underreported and diagnosed late.(2, 6) The history of worsening nail picking during work deadlines is especially relevant because body-focused repetitive behaviours are commonly precipitated by anxiety, boredom, or tension and may transiently relieve internal discomfort once the act is performed.(3) In broader BFRB literature, stress-release is a dominant motive, and reviews of nail-associated repetitive behaviours including Singal & Daulatabad (2017) emphasize that onychotillomania can coexist with anxiety, obsessive-compulsive-spectrum symptoms, depression, and other psychiatric comorbidities rather than existing as an isolated nail problem.(7) In a 2022 review of 29 published onychotillomania cases, eight were associated with depression with or without psychosis, four with anxiety-spectrum conditions or specific phobias, and two with psychosis and hypochondriacal delusions, which supports the psychiatric referral made in this patient.(2)

Morphologically, the uniformly shortened, jagged nail plates with irregular free edges, periungual erythema, mild maceration, and torn cuticles are best explained by chronic self-induced trauma to the nail unit. Rieder and Tosti noted that onychotillomania produces a broad but nonspecific spectrum of findings, including bizarre nail-

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plate alteration and injury to the nail bed and periungual skin,(1) and Reese et al. likewise emphasized that both the clinical and histopathologic appearances are often nonspecific, which is why correlation with behaviour is essential for diagnosis.(8) The absence in this patient of pitting, Beau's lines, subungual debris, onycholysis, frank paronychia, or permanent destructive changes such as anonychia argues that the process was active and traumatic but had not yet progressed to irreversible matrix scarring.

Dermoscopy was particularly valuable in this case because onychoscopy is increasingly recognized as a rapid, noninvasive bedside tool that improves diagnostic accuracy in inflammatory and traumatic nail disorders. Maddy et al. evaluated 36 cases of onychotillomania and found scales in the nail bed, nail folds, and hyponychium in 94.4% of cases, absence of nail plate in 83.3%, wavy lines in 69.4%, obliquely oriented haemorrhages in 63.9%, crusts in 61.1%, nail-bed pigmentation in 47.2%, speckled dots in 38.9%, and melanonychia in 11.1%.(4) The present patient's splinter haemorrhages, irregular scaling, loss of proximal nail fold shine, and periungual telangiectatic change fit well within a mechanically traumatized nail unit and support chronic repetitive picking rather than a primary dystrophic process. The main differentials were onychomycosis, trachyonychia, nail psoriasis, and nail lichen planus.(9) This distinction is important because onychoscopy provides useful pattern recognition for each of these disorders: onychomycosis typically shows longitudinal striae, colour change, and distal onycholysis with a jagged proximal margin and spikes; nail psoriasis classically shows pitting, distal onycholysis, splinter haemorrhages, and a yellow-orange dented proximal edge; trachyonychia often shows diffuse roughness with scaling, longitudinal ridging, proximal nail-plate involvement, pitting, onychoschizia, and ragged cuticles; and nail lichen planus tends to produce rough brittle nails, longitudinal streaking or splitting, chromonychia, and sometimes scarring complications such as pterygium. The lack of these signature patterns, together with negative KOH microscopy, negative fungal culture, and nail-clipping histology without dermatophytes, substantially strengthens the traumatic diagnosis. Nail clipping is a recognized adjunctive investigation in the evaluation of onychomycosis, psoriasis, and other dystrophies, and histopathologic examination of nail clippings remains a useful complementary test when fungal disease is suspected clinically.(10, 11)

The psychiatric assessment was also meaningful. The diagnosis of a body-focused repetitive behaviour disorder associated with distress is consistent with the current understanding of nail picking as part of the obsessive-compulsive and related disorders/BFRB spectrum, even though onychotillomania remains less formally codified and less studied than trichotillomania or excoriation disorder. His Hamilton Anxiety Rating Scale score of 18/56 indicates clinically relevant anxiety and falls within the mild-to-moderate to moderate range in commonly used HAM-A interpretive schemes, making it plausible that occupational stress was functioning as a trigger and a perpetuating factor.(12) Management in this patient was appropriately multimodal and prioritized behavioural treatment. Habit reversal training is regarded as a clinically effective intervention for body-focused repetitive behaviours, and its core elements include awareness training plus a competing response, exactly reflected here by awareness cues and fist clenching. Dunbar et al. noted that CBT-based interventions for nail-focused repetitive behaviours are commonly delivered weekly over roughly 12 to 20 weeks,(13) and a systematic review of skin-picking disorder found that among available controlled interventions, only behavioural treatments demonstrated significant benefit over inactive controls.(14) Notably, Snorrason and Woods reported a chronic severe nail-picking case treated with acceptance-enhanced behaviour therapy that showed moderate clinical improvement, reinforcing the rationale for psychotherapy in this patient.(15)

The addition of N-acetylcysteine (NAC) is also defensible, although the evidence is extrapolated more from related BFRBs than from onychotillomania itself. NAC is a glutamatergic modulator that has shown benefit in adult trichotillomania and excoriation disorder: in Grant et al.'s 12-week randomized trial in adults with trichotillomania, NAC produced statistically significant symptom reduction – improvement in 56% of treated participants versus 16% on placebo; in a 66-patient randomized clinical trial of excoriation disorder, 47% of NAC-treated patients reported notable improvement versus 19% of placebo-treated patients.(16) At the same time, Lee & Lipner emphasize that direct trials specifically for onychotillomania are lacking, so use in

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nail picking remains biologically plausible but evidence-light.(17)

The adjunctive use of bitter nail lacquer and emollients was likewise sensible because stimulus-control or aversive-barrier strategies are frequently recommended in nail tic disorders to reduce automatic access to the target site and improve periungual barrier integrity. The early outcome is encouraging: approximately 60% nail regrowth at eight weeks with better behavioural control is compatible with preserved matrix function rather than permanent scarring, and that degree of visible recovery is biologically plausible because healthy fingernails grow at about 3.0 to 3.5 mm per month. In other words, the combination of negative mycology, nonspecific but nonfungal clipping histology, characteristic trauma-centered dermoscopy, psychiatric correlation, and partial regrowth after behavioural and pharmacologic intervention makes the diagnosis of onychotillomania substantially more convincing than an infectious or primary inflammatory nail disorder.(18, 19)

Conclusion

This case highlights onychotillomania as an underrecognized cause of acquired nail dystrophy that can closely mimic infectious or inflammatory nail disorders. Careful clinical assessment, supportive dermoscopic findings, exclusion of fungal pathology, and attention to underlying psychological triggers were essential in establishing the diagnosis. Early recognition of the self-induced nature of the nail changes allowed appropriate multidisciplinary management with behavioural therapy and adjunctive pharmacologic support, resulting in meaningful nail regrowth and improved symptom control. The report emphasizes the importance of considering onychotillomania in patients with bizarre nail dystrophy and stress-associated repetitive nail manipulation to avoid delayed diagnosis and unnecessary treatment.

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Figure 1: Multiple fingernails show uniformly shortened nail plates with irregular, ragged free edges and distal thinning. Periungual erythema with cuticular disruption and minor erosions are noted. No pitting, onycholysis, subungual hyperkeratosis, or paronychia is observed; palms are spared

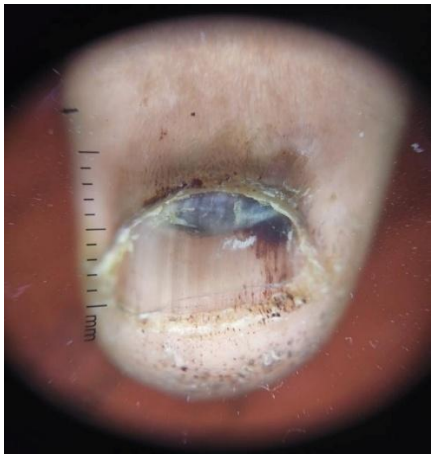

Figure 2: Dermoscopy findings (×10 magnification) shows splinter haemorrhages, focal subungual haemorrhage, irregular distal onychoschizia, and disruption of the proximal nail fold with adherent crusting. Longitudinal ridging and focal scaling of the nail plate are noted