Pathologic Grooming Behavior: Facial Dermatillomania

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Dermatillomania is a pathologic grooming disorder characterized by repetitive, ritualistic, impulsive skin picking without an underlying dermatologic condition. It can lead to skin damage and distress and can affect patient function. This disorder has not received much attention in the literature, with few studies reporting treatment efficacy. Patients with dermatillomania typically present to primary care physicians and frequently are referred to dermatologists; only rarely do patients receive additional psychiatric consultation that may improve treatment efficacy and decrease morbidity. We provide a case report of long-standing facial dermatillomania and our multimodal treatment approach.

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Dermatillomania is a pathologic grooming disorder characterized by repetitive, ritualistic, impulsive skin picking without an underlying dermatologic condition. It can lead to skin damage and distress and can affect patient function. Although this disorder is prevalent, it has nebulous diagnostic criteria as well as scarce and conflicting data on treatment. Patients with dermatillomania typically present to primary care physicians and frequently are referred to dermatologists; only rarely do patients receive additional psychiatric consultation that may improve treatment efficacy and decrease morbidity. We report a case of an innovative multimodal method of intervention for long-standing illness and the outcome in this patient. We also review pertinent literature.

Case Report

A 57-year-old married white woman presented with a 30-year history of picking out facial hair and skin abnormalities with tweezers. Picking took place clandestinely for 3 to 5 hours every night, primarily when alone while watching television programs. There was no underlying dermatologic condition, yet she felt that her hair and skin irregularities made her "look like a man" or a "bearded lady in the circus." She reported that the picking action had a calming or soothing effect, while her objective for picking was to have perfectly smooth skin. Subsequent infections and constant mutilation resulted in the use of heavy cover-up cosmetics during the last 20 years. The patient shunned any activity that would affect the integrity of the makeup, fearing others would discover her picking disorder. She avoided anything that would dampen her face including swimming, exercise, or any increased activity that might cause perspiration, which led to an increasingly sedentary lifestyle. In addition, she avoided physical contact that might cause the makeup to rub off her face. This avoidant behavior resulted in continual strain on her relationships, culminating in a total lack of physical contact and sexual intimacy with her husband for the last 2 years.

Relevant medical history included 40 years of nail-biting, which began at 7 years of age and resulted in periodic bleeding. This behavior stopped at 47 years of age (10 years prior to presentation) when she developed an overbite, which disabled her nail-biting. The patient had a 1½-year episode of hairpulling, though it did not result in thinning or balding, which spontaneously resolved. Additionally, she had a 30-year history of daily binge eating and presented with a body mass index of 37.3 (normal, 18.5–24.9). She also had a history of breast

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cancer treated with chemotherapy and radiation. Family history was noncontributory.

Attempts at alternative hair removal (ie, waxing, electrolysis) had proved futile, as the hair and bumps were not reduced enough to substantially alter her hair-picking behavior. In the 3 years prior to presentation, she began treatment with an outside dermatologist. He described widespread inflammatory indurated papules and many excoriations covering the cheek and chin areas (Figure 1). To reduce the thickness, growth speed, and amount of hair, laser hair removal was administered along with spironolactone, eflornithine hydrochloride cream, and topical steroids. He also prescribed prophylactic oral and topical antibiotics to prevent recurrent infection. Initially these interventions notably decreased facial hair, irregularities, and picking; however, the patient continued to dig into her skin and pick any imperfections to make her skin perfectly smooth. According to the patient, at this point the dermatologist suggested that "there could possibly be an underlying reason for [her] picking that needed to be addressed." She also reported, "I must admit that out of the dozens of doctors I see, he was the only one to see a deeper problem." Prior to the psychiatric referral, the patient had never seen a psychiatrist/psychologist. However, 5 years prior, her oncologist had prescribed 50 mg daily of sertraline hydrochloride (1 year following breast cancer treatment) for anxiety, dysphoria, and decreased energy. In other attempts, she was unable to tolerate venlafaxine hydrochloride, paroxetine hydrochloride, or an increased dosage of sertraline hydrochloride.

During the first visit after a comprehensive psychiatric interview, the diagnosis of dermatillomania (included in the category of impulse control disorder not otherwise specified) was made. The differential diagnosis included body dysmorphic disorder (preoccupation with a specific part of the body due to a perception that it is flawed or grotesque) and depression not otherwise specified. She also exhibited features of dysthymic disorder (prolonged nonepisodic depressed mood) and binge eating disorder as well as a history of trichotillomania and onychotillomania.

Because there was not an adequate decrease of skin picking despite prolonged treatment, we changed her medication from sertraline hydrochloride to 20 mg of duloxetine twice daily. Cognitive-behavioral interventions, including keeping a log of skin picking and associated emotions with the intention of increasing the patient's awareness of her picking behavior and associated mood state, were recommended. She was asked to increase the pleasurable activities in her life such as guitar playing and body massage and to limit triggers associated with picking such as television watching. The patient also was asked to give her tweezers away, but she refused. As a way of releasing stress, she was encouraged to increase physical activity with exercise, such as pool walking. Habit substitution was attempted by asking her to use a fidget ring, a finger ring with 2 bands that allow the outer ring to spin. The patient was told to use the ring whenever she felt the need to pick.

Over the following 6 months, sex counseling was introduced as well as medication optimization, titrating up her maintenance dosage of duloxetine to 60 mg daily. The patient began regular exercise, a daily log in her diary, and regular use of her fidget ring. Over time, she experienced a progressive increase in sexual fulfillment, improvement of mood, resolution of facial pain, and an 11-lb

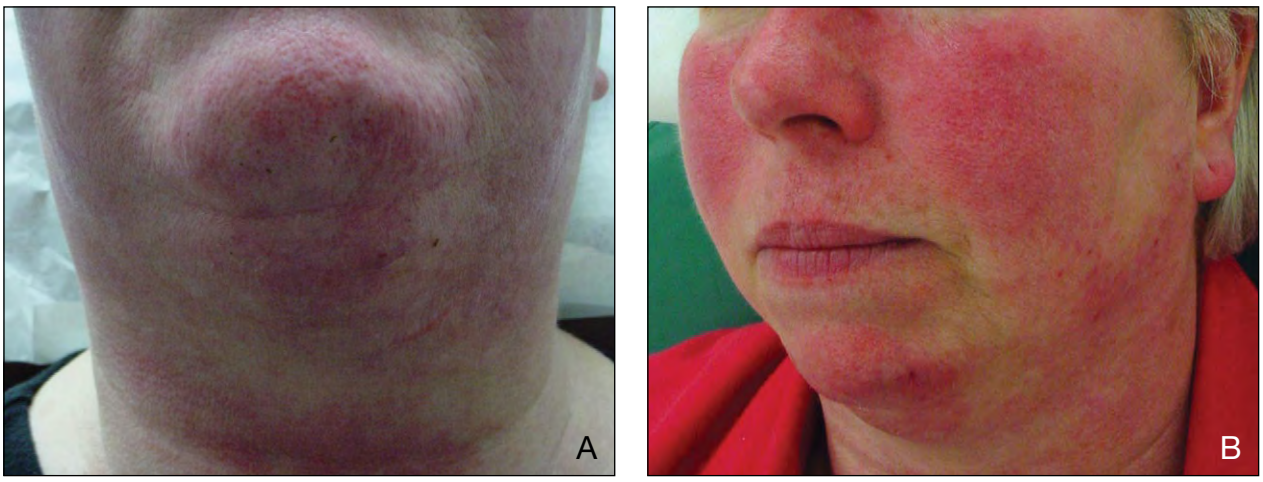

Figure 1. Widespread inflammatory indurated papules and excoriations covering the cheek and chin areas caused by skin picking (A and B).

weight loss. At 6 months the patient reported complete remission of skin picking and lessened/rare binge eating (1 time every 3 weeks); she was satisfied with the results (Figure 2). Using the skin picking scale presented by Keuthen et al,[1] which evaluates 6 items on a 5-point scale (0=none; 4=extreme) with a maximum score of 24, the severity of skin picking had been reduced from a score of 22 before treatment to 4 at 6 months posttreatment (Table).

Comment

Impulse Control Disorders—Dermatillomania (skin picking), trichotillomania (hairpulling), and onychophagy (nail-biting) are forms of grooming behaviors specified under impulse control disorders not otherwise specified. These disorders are characterized by an individual's failure or extreme difficulty to control impulses despite negative consequences. Prevalence of this disorder is hard to quantify because of the lack of standard classifications as well as poor differentiation of severity in epidemiologic studies. The estimated prevalence in the population of pathologic dermatillomania is 2% to 5%, with the condition presenting more frequently in females. These disorders typically begin in childhood/early adolescence and are more common in families with a history of obsessive-compulsive disorder.[2,3] Of these impulse control disorders, only trichotillomania has a *Diagnostic and Statistical Manual of Mental Disorders* (Fourth Edition) classification.[4] Onychophagy is a pathologic self-grooming behavior in which nail length is controlled by teeth rather than nail scissors/clippers.[3]

Dermatillomania, also known as pathologic skin picking, compulsive skin picking, or neurotic excoriation, has received the least attention in the medical literature. This classification can be applied to situations of repetitive, ritualistic, or impulsive skin picking in the absence of an underlying dermatologic condition. The picking leads to tissue damage and causes substantial distress or impairment in daily functioning.[5] Skin picking typically is chronic (the average duration is 5−21 years) and is 8 times more prevalent in females. Most patients spend a total of 3 hours or less per day excoriating the skin.[6]

Despite a high prevalence, substantial impairment, and morbidity, patients may go untreated for years due to low patient presentation to healthcare professionals from embarrassment, guilt, or denial, and underdiagnosis and recognition from limited literature and education regarding diagnosis and possible treatment options. Together, these qualities have led to undertreatment and a limited number and power of studies.

The most common psychiatric comorbidities include anxiety disorders, mood disorders, alcohol abuse/dependence, and body dysmorphic disorder. The most common personality disorders associated with dermatillomania are obsessive-compulsive personality disorder and borderline

Patient Evaluation Using Skin Picking Scale[a]

	Before Treatment	6-mo Posttreatment
Frequency of urges	4	1
Intensity of urges	4	2
Time spent picking	4	0
Interference with daily function	3	0
Distress	4	1
Behavior avoidance	3	0
Total	22	4

[a]Items measured on a 5-point scale (0=none; 4=extreme).[1]

personality disorder.[6] Pathologic grooming behaviors have been associated with the obsessive-compulsive spectrum, as they have been shown to have similar underlying triggers, neurotransmitter circuits, motivations, clinical courses, comorbidities, and family history.

Neuroimaging has shown that these disorders, as with other impulse control disorders, are caused by positive reinforcement in the reward system in the nucleus accumbens and serotonergic circuits. An associated impaired inhibition of motor responses also has been demonstrated. Particular genes implicated include 5-hydroxytryptamine receptor genes; homeobox B8, *Hoxb8;* and SLIT and NTRK−like family, member 1, *SLITRK1*.[7]

There also is a strong correlation and possible similar etiology with body dysmorphic disorder, as suggested in our case with our patient's preoccupation and feelings of being "a bearded lady." Approximately 44.9% of patients with body dysmorphic disorder report lifetime dermatillomania.[8]

Treatment—First-line treatment of trichotillomania and onychophagy is habit reversal,[3] which may entail awareness, relaxation training, competing rewarded response training (movements incompatible with habitual behaviors), and training to control habitual behaviors in different everyday situations.[5] Other interventions with some varying degrees of success include relaxation techniques, decrease in associated activities and environments, reinforcement (particularly in children), punishment, and self-monitoring. Pharmacologic interventions have more success with trichotillomania than with onychophagy and primarily include clomipramine hydrochloride and selective serotonin reuptake inhibitors.[3]

Dermatillomania treatment is not as well-established. A few studies have been published on the treatment of skin picking, and there has been poor comparison in response among severity, underlying skin conditions, comorbid psychiatric conditions, emotional versus compulsive motivation, and treatment outcomes.

Dermatologic treatments used alone usually are not efficacious for body dysmorphic disorder,[9] and the standard of care for the other obsessive-compulsive disorders and pathologic grooming behaviors are psychiatric. Therefore, it is reasonable to extrapolate based on theoretical underpinnings and logic that psychiatric treatment should be considered for patients with dermatillomania who do not respond quickly to dermatologic treatment to address the underlying psychiatric condition.

Regarding behavioral interventions, there is 1 randomized controlled trial evaluating habit reversal. It included 19 females, predominately college students, and showed a greater reduction, but not complete remission, in skin picking when compared to no intervention.[10] In children, randomized controlled studies are lacking; however, some case reports exist, including a 9-year-old boy who showed the greatest efficacy when replacement behavior was combined with amphetamine and dextroamphetamine tablets for comorbid attention-deficit/hyperactivity disorder.[11]

Figure 2. At 6 months posttreatment with cognitive-behavioral interventions and duloxetine, the patient experienced complete remission of skin picking and associated symptoms.

Studies on pharmacologic treatment of dermatillomania include a small double-blind, placebo-controlled trial by Hendrickx et al[12] in 1991 that failed to establish the efficacy of fluvoxamine maleate. In 1997, Simeon et al[13] reported that fluoxetine hydrochloride was superior to placebo in a trial with 17 participants. In 2001, Bloch et al[14] published a small open-label fluoxetine hydrochloride trial. Following this trial, responders were randomized to double-blind treatment with fluoxetine hydrochloride or placebo control. Improvement was sustained in the experimental group, but the placebo group returned to pretrial baselines.[14] Similarly, open-label trials of both sertraline hydrochloride and fluvoxamine maleate resulted in reductions in skin-picking behavior as reported by Kalivas et al[15] in 1996 and Arnold et al[16] in 1999. In a study by Keuthen et al[17] published in 2007, escitalopram was used in an open-label study that revealed a 44.8% (13/29) full response. Case reports of doxepin, clomipramine, naltrexone, pimozide, and the addition of olanzapine to selective serotonin reuptake inhibitors demonstrate varying degrees of response.[6,18] When dosing antidepressants, it is general practice to begin at a

low dosage and titrate up based on tolerability and efficacy, with at least 4 weeks between dosage changes to properly assess response to a preexisting dose.

Skin Picking Scale—To standardize diagnosis and treatment response, it may be useful to employ the skin picking scale.[1] It may provide encouragement to the patient with a more objective scale of progress and a gauge of treatment success. Six items are rated on a 5-point scale (0=none; 4=extreme). The 6 items include frequency of urges, intensity of urges, time spent picking/time taken away from other activities, skin picking interference with daily function, level of anxiety when picking is prevented, and avoidance of other activities due to results of skin picking.[1]

Conclusion

Our case demonstrated the application of duloxetine, a selective serotonin-norepinephrine reuptake inhibitor, to achieve remission in a patient with long-standing, severe, refractory dermatillomania. In addition, we applied behavior replacement with a fidget ring, increased pleasurable activity, increased exercise, and use of a diary, in addition to concurrent dermatologic treatment, to minimize dysmorphia.

Although our case demonstrates an efficacious approach to the treatment of dermatillomania, larger-scale studies are needed to validate the reliability of duloxetine as well as the combination of behavioral and pharmacologic treatments. Long-term results also must be assessed, coupled with guidelines for duration of treatment. Continued follow-up and a trial discontinuation are needed to assess the appropriate treatment length.

Further studies should be undertaken to determine possible screening questions and common red-flag features, which will help identify patients at risk for impulse control disorders who may be hesitant to seek treatment.

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