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Obsessive-compulsive disorder in dermatology

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Summary

Patients with obsessive-compulsive (OCD) and related disorders – primarily trichotillomania, body dysmorphic disorder, and skin picking disorder – frequently present to dermatologists due to associated hair and skin symptoms. It is therefore crucial that dermatologists be familiar with these disorders. In this review article, we provide an update on clinical features, neurobiology factors, and treatment options for OCD spectrum disorders. Employing PubMed and Cochrane Library databases, a selective literature search was conducted using keywords related to dermatological disorders within the OCD spectrum. OCD and its related disorders share several phenomenological as well as pathophysiological similarities, thus warranting their classification within a separate nosological category of psychiatric disorders. Another similarity of OCD spectrum disorders is the frequent concurrence of hair and skin diseases. Besides symptomatic dermatological treatment, the combination of psychotherapy (behavioral therapy) and psychopharmacotherapy (SSRIs) may be helpful. Although recent insights into OCD have contributed to a better understanding and treatment thereof, more research is required, especially with respect to OCD spectrum disorders, for which large controlled treatment studies are still lacking.

Introduction

Apart from its function as an interface and contact organ to the environment, the skin is considered the “mirror of the soul,” and is therefore an essential expressive organ for human emotions [1]. On the one hand, chronic psychological stress situations can manifest themselves in the form of dermatoses; on the other hand, primary dermatological diseases may lead to the development of psychological symptoms. More than one-third of all patients with skin diseases additionally develop psychological symptoms, which, in turn, negatively affect the primary skin disease [2]. Studies published to date indicate comorbidity rates of 20 % to 50 % [3]. A recently published European multicenter study with almost 5,000 participants showed comorbidity rates of 10.1 % for depression and 17.2 % for anxiety disorders [4].

Patients with an underlying psychiatric disorder frequently present to ‘somatic’ specialists due to fear of stigmatization, lack of disease acceptance, but also secondary gain.

Depending on the study, the percentage of obsessive-compulsive disorder (OCD) patients with skin diseases, who primarily present to a dermatologist, ranges between 9 % and 35 % [5]. A pronounced sense of shame and a tendency to conceal, which is typical for these patients, seem to be essential reasons for OCD patients to seek delayed psychiatric-psychotherapeutic help. Studies have repeatedly shown that OCD patients enter into psychiatric treatment only approximately 8-10 years after the onset of initial symptoms [6], at which point there has frequently been a chronification of symptoms. In order to avoid this, early detection and initiation of adequate treatment is pivotal. In the following, OCD and related disorders will be discussed with respect to their relationship to dermatology.

Definition and classification

Even though the relationship between the skin and the mind has been known and obvious for a long time, many aspects

Table 1 Example of an attempt at classifying psychodermatological disorders (modified from [2]).

Group/category	Individual disorders (examples)
Psychophysiological diseases	▶ Hyperhidrosis
	▶ Atopic dermatitis
	▶ Acne vulgaris
	▶ Acné excoriée
	▶ Lichen simplex
	▶ Psoriasis
	▶ Seborrheic dermatitis
	▶ Rosacea
	▶ Telogen effluvium
Primary psychiatric disorders associated with skin reactions	▶ Obsessive-compulsive disorders
	▶ Anxiety disorders
	▶ Trichotillomania
	▶ Depressive disorder
	▶ Delusional disorder
	▶ Dementia disorders
	▶ Dissociative disorders
	▶ Somatoform disorders
Secondary psychiatric disorders as a result or complication of an underlying dermatological disease	▶ Alopecia areata
	▶ Vitiligo
	▶ Neurofibromatosis
	▶ Chronic eczema
Cutaneous Sensory Disorder (CSD)	▶ Psychogenic pruritus
	▶ Glossodynia
	▶ Vulvodynia

between psychological and dermatological disorders have not been fully elucidated. An essential reason for this is the complexity and heterogeneity of skin reactions as well as psychopathological phenomena. Research on and identification of the relationship between psychopathological and dermatological reactions and phenomena is at the center of the field of psychodermatology. According to AWMF guidelines on psychodermatology, psychodermatological disorders are commonly classified into three large groups [7]. However, gi-

ven that the corresponding literature is inconsistent, we favor a classification into four groups (see Table 1) [2].

The group of “primary psychiatric disorders“ includes those patients who experience pathological skin reactions as a result of an underlying psychiatric disease. A recent study has shown that dermatological diseases are significantly more common in patients with a primary psychiatric disorder than in those without such a disease (71.5 % vs. 22 %) [8]. The group of primary psychiatric disorders additionally or more frequently associated with dermatoses, among others, also includes OCD. In the current Diagnostic and Statistical Manual of Psychological Disorders V (DSM-V) [9], OCD and related disorders now make up a new nosological category of their own, which includes body dysmorphic disorder, pathological hoarding, trichotillomania, skin picking, but also medication- and substance-induced OCD. Making the diagnosis of OCD requires fulfillment of the time criterion (more than one hour per day), but at least a significant impairment in various psychosocial aspects. In comparison with ICD-10 [10], there is now additional coding of the patients’ capability to realize (good, little, lacking) the absurdity or inappropriateness of their obsessive-compulsive behavior (Table 2). Given that specialized psychodermatological consultation hours and drop-in centers are not available in many places, a closer cooperation between psychiatrists and dermatologists, whom affected patients often consult first, is indispensable.

Obsessive-compulsive disorder

Psychopathology

With a lifetime prevalence of 1-3 %, obsessive-compulsive disorder (OCD) ranks among the most common psychiatric disorder, and is characterized by compulsive thoughts and/or compulsive actions [11]. Compulsive thoughts refer to bothersome and intrusive thoughts, worries, impulses, and ideas affected individuals cannot shake off, although they find them repulsive, intolerable, and meaningless. Most commonly, such compulsive thoughts refer to pollution, contamination, and infection with a life-threatening germ. Thoughts as to thus representing a danger to others and being responsible for a disaster also occur frequently. For affected individuals, these agonizing thoughts are associated with great anxiety, strong internal unrest, and tension. Initially, affected individuals attempt to avoid situations in which such thoughts occur or could be enhanced, or they take various precautions such as constantly wearing gloves. The transition between the – at times bizarre – avoidance strategies and actual compulsive obsessive behavior is fluid. Compulsive obsessive behavior are actions that are always repeated in the same manner, which are performed by affected individuals against internal resistance, and which they can barely resist. In general,

Table 2 Obsessive-compulsive disorders relevant in dermatology according to ICD 10 and DSM V.

Disorder	ICD 10	DSM V
Obsessive-compulsive disorder	<ul style="list-style-type: none"> ▶ Primarily compulsive thoughts or obsessional rumination (F42.0) ▶ Primarily compulsive actions/ rituals (F42.1) ▶ Combination of compulsive thoughts and actions (F42.2.) 	<ul style="list-style-type: none"> ▶ Obsessive-compulsive disorder (OCD): 300.3 ▶ Specification of the capability to understand/ realize ▶ Specification of a tic disorder as comorbidity
Body dysmorphic disorder	<ul style="list-style-type: none"> ▶ Classifiable as a form of hypochondriac disorder (F45.21) in the category of somatoform disorders 	<ul style="list-style-type: none"> ▶ Body dysmorphic disorder (BDD): 300.7 ▶ Specification of muscle dysmorphia ▶ Specification of the capability to understand/ realize
Trichotillomania	<ul style="list-style-type: none"> ▶ Classifiable under abnormal habits and impulse control disorder (F63.3) 	<ul style="list-style-type: none"> ▶ Trichotillomania (hair-pulling disorder): 312.39
Dermatillomania (skin picking)	<ul style="list-style-type: none"> ▶ No explicit mention, but classifiable under other abnormal habits and impulse control disorder (F63.8) or ▶ Under factitious dermatitis (L98.1) (including neurotic excoriation) 	<ul style="list-style-type: none"> ▶ Excoriation disorder (skin picking disorder): 698.4

compulsive obsessive behavior serve to reduce anxiety and inner unrest caused by obsessive-compulsive thoughts. Analogous to the preceding obsessive-compulsive thoughts, the most common compulsive obsessive behavior refer to “washing and controlling”. Here, the washing and controlling actions are often performed in a ritualized manner. Close relatives are frequently also included in these compulsive obsessive behavior.

Dermatological symptoms

Sixteen percent of all OCD patients have a washing compulsion, which is manifested by multiple – long and ritualized – hand washings (50-100 times per day) [12]. In case of a corresponding genetic disposition, some of these OCD patients develop atopic dermatitis. At 10 %, hand dermatitis is one of the most common skin diseases [13]; however, exact figures on the actual percentage of OCD patients is lacking. There have been reports of atopic dermatitis, irritant toxic dermatitis, or dry skin eczema (*eczéma craquelé*) of the hands in patients with washing compulsion [14]. Especially with regard to certain professions, for example, in the healthcare, cosmetic, and hairdressing sector, this is of great clinical, but also sociomedical relevance [15, 16]. It is therefore not surprising that hand dermatitis in the context of compulsive washing in OCD patients is one of the most common visible symptoms. It may be regarded as important evidence for the presence of OCD, as many affected individuals are “masters” at keeping

their OCD a secret over many years. Thus, the true cause behind localized atopic dermatitis (*lichen simplex chronicus*) associated with eczematous skin lesions in the genital and sacral area as well as on the neck and the extremities, may actually be severe OCD with excessive washing and frequently hour-long showering [14]. To date, little attention has been paid to infectious (bacterial, viral, but also parasitic) skin disorders, which can develop in OCD patients caused by lack of hygiene due to pronounced avoidance behavior. In this subgroup, the differential diagnosis should also include obsessive-compulsive behavior in the context of a schizophrenic disorder, as these diseases show a high comorbidity rate (up to 30 %) [17].

Pathogenesis

The exact etiopathogenetic mechanism of OCD remains unclear. However, numerous research results now available, predominantly based on structural and functional imaging, indicate that in OCD a dysfunction of the cortico-striato-thalamo-cortical (CSTC) control loops and a corresponding imbalance of various neurotransmitters and -modulators are pathogenetically relevant. The serotonergic system, which innervates and modulates (by inhibition) the CSTC control loop, seems to be pathogenetically involved in at least some OCD patients [18].

In addition, there are several psychological models, which are primarily regarded as extensions of the two-factor

model proposed by Mowrer [19]. In this two-factor model, it is assumed that obsessive-compulsive behavior is learned and maintained by classical and operant conditioning. The cognitive-behavioral model of OCD suggested by Salkovskis [20] additionally assumes that obsessive-compulsive thoughts originate from normal intrusive thoughts. The cognitive-behavioral model as an extension of the two-factor model represents the theoretical foundation for behavioral therapy, whose effectiveness in the treatment of OCD is undisputed.

Trichotillomania

Psychopathology

Trichotillomania is characterized by a pathological compulsive urge to pull out one's own hair (in various body parts), potentially culminating in trichodaganomania (biting one's own hair). Furthermore, other forms such as trichotemnomania and trichoteiromania have to be distinguished [21]. Depending on the study, the lifetime prevalence ranges between 0.6 % and 4 %, with the highest incidence observed in childhood (between seven and twelve years of age) [22]. Predominantly affecting female individuals (gender ratio [f:m] 10:1), the condition is preceded by an increase in anxiety and inner tension, which is reduced by pulling out hair. This kind of symptoms is similar to the increase in tension caused by obsessive-compulsive thoughts or impulses, and the neutralization thereof through compulsive obsessive behavior. However, these actions may also be preceded by other emotional states such as boredom, and some patients – instead of relief – even experience feelings of guilt and shame after pulling their hair. Affected individuals attempt to hide or conceal the hair loss or bald patches, for example, by inappropriately wearing wigs, sunglasses, or excessive amounts of makeup. Given the resultant bizarre appearance in some cases, patients subsequently attract even more attention, exposing them to ridicule by others. As a result, affected individuals frequently react with increased social withdrawal and symptoms of depression [22]. Apart from psychosocial consequences, somatic complications such as carpal tunnel syndrome due to overuse of the wrists or gastrointestinal ileus caused by ingested hair in patients with trichophagia have also been observed [22].

Dermatological symptoms

Trichotillomania patients primarily consult dermatologists for workup and treatment of alopecia, which, in these individuals, is characterized by round patches of irregular and incomplete hair loss in the frontoparietal region. In most cases, the scalp itself does not show any or only mild signs of inflammation. In severe forms of trichotillomania, all body hair may be affected by alopecia (eyebrows, lashes, and pubic hair).

The overlap between trichotillomania and other psychological disorders (OCD, severe structural personality disorders) as well as the differential diagnostic differentiation of alopecia as a symptom of various other hair diseases [23] complicate the diagnostic process. However, the use of noninvasive methods (trichoscopy, computer-based phototrichogram or Trichoscan®) can partly help detect hair changes typical for trichotillomania. Clinically, there is a typical three-phase zone structure:

- ▶ Regular long hair (unremarkable, not affected)
- ▶ Missing hair with “acute” circumscribed alopecia as well as – characteristically – petechial hemorrhage and partly broken hair shafts in the hair canal due to circumscribed hair pulling, and
- ▶ Irregular regrowth of hair in previously hairless areas [23].

Apart from reduced hair density, hairs of various lengths with split ends, and irregularly coiled hairs with broken hair shafts, there is a dysplastic anagen hair root pattern, i.e. the hairs are in the growth phase, but are poorly anchored in the scalp and can therefore easily be plucked [24].

Pathogenesis

Similar to OCD, trichotillomania is today also considered a multifactorial disorder, in which evolutionary biology, genetic, neurobiology, and also psychodynamic factors play a role. Apart from disturbances in stimulus and impulse control, trichotillomania patients are attributed deficits in regulating emotions, especially in terms of alexithymia (an inability to perceive and express one's own emotions). Evidence for this comes from structural and functional imaging studies, which were able to show changes in the frontal and striatal brain regions. In addition, other findings suggest a dysfunction of the CSTC control loops as a possible pathomechanism of trichotillomania [25]. The efficacy of serotonergic and dopaminergic agents in patients with trichotillomania is interpreted as evidence for an essential pathogenetic role of these neurotransmitters [25]. While glutamate also seems to be involved in the pathogenesis, this has primarily been inferred from studies in which the use of N-acetylcysteine as glutamate modulator led to an improvement of symptoms in up to one-half of trichotillomania patients [22].

Dermatillomania

Psychopathology

Dermatillomania (skin picking) is characterized by repetitive, impulsive skin plucking/pinching and resultant skin lesions. Although affected patients attempt to reduce or desist

from this senseless and harmful behavior of compulsive skin scratching and picking (preferentially in the face), they do not succeed in suppressing this urge due to loss of control. Depending on the study, prevalence rates of 0.03 % to 9.4 % have been reported for this clinical condition also known under different names (neurotic excoriations, dermatitis artefacta, and others) [26]. Women between 30 and 50 years of age are predominantly affected ([f:m] 1:3 or 1:20), with initial symptoms already starting in adolescence. Psychosocial stressors such as unemployment, separation, and others contribute to the exacerbation and maintenance of the disease [26, 27]. Here, affected individuals experience an “inner tension and strong inner stress,” which is temporarily reduced by the obsessive-compulsive “scratching actions.” It has also been discussed that these – partly very painful – manipulations of one’s own body are done in a dissociative state, i.e. removed from one’s own sense of identity. In these cases, there are often additional psychiatric disorders as well as severe and complicated disease courses, also with regard to the skin lesions [28].

Dermatological symptoms

Excoriations are predominantly found in areas easily accessible to the patients. Common predilection sites are the face (acne excoriée), but also the extensor aspects of the extremities. Involvement of the scapula region, without affecting the remainder of the back, is known as the butterfly sign [12]. Usually involving the dermis, the injuries to the skin may at times be associated with severe inflammation, hyper- or hypopigmentation, as well as plaque-like, lichenified, pruritic skin lesions such as lichen simplex chronicus and prurigo nodularis. Other lesions may affect the nails; here, onychodystrophy, hypertrophic paronychia, as well as grinding of the nail bed and onycholysis have been described [12].

Pathogenesis

The causal genetic mechanism of dermatillomania is unclear. One neurobiological hypothesis postulates that stress-induced increased cortisol and endorphin release results in increased central dopamine release, which in turn causes activation of the basal ganglia and related motor programs. Evidence in favor of this hypothesis includes, on the one hand, the finding of white matter changes, especially in the anterior cingulate cortex and frontal brain regions [28], and, on the other hand, the positive effect of dopamine antagonists in the treatment of skin picking patients. However, there are also studies showing the efficacy of serotonergic agents. Thus, it may be speculated that a dysfunction of the central serotonergic system could be pathogenetically relevant.

Body dysmorphic disorder

Psychopathology

Also known as dysmorphophobia, body dysmorphic disorder (BDD) is characterized by excessive mental occupation with one or several, predominantly subjectively perceived, defects or disfigurements of one’s physical appearance. Affected individuals most frequently complain about disfigurement of the nose, the ears, but also of the breasts, although there is no objective evidence thereof. These compulsive, repeatedly intruding worries regarding their physical appearance lead to unease, insecurity, anxiety, and tension. In order to reduce this, patients repeatedly perform actions such as checking their appearance in front of a mirror and demanding reassurance by other people. According to the DSM-V, muscle dysmorphia is a particular form of BDD, in which affected individuals believe that their muscles are too weak and their body too small. Studies report prevalence rates between 1 % and 11 % for BDD, which predominantly occurs in women between the age of 35 and 50 and in men younger than 35 years. However, the onset of the disease is suspected to occur in early adolescence (puberty), on average around the age of 16, apparently primarily presenting as body image disorder. This, in turn, explains the frequent comorbidity with eating disorders. Moreover, the severity and progression of BDD may be complicated especially by the concurrence of OCD, skin picking, trichotillomania, or anxiety disorder. High comorbidity rates of up to 60 % have been reported [29]. Frequently, increasing social isolation leads to symptoms of social phobia and depression with suicidal tendencies. Up to 80 % of patients with BDD have suicidal thoughts, and up to 25 % attempt suicide at least once. Especially in suicidal patients, it should therefore be carefully assessed whether body dysmorphic fears have not already merged into delusional ideas [29].

Dermatological symptoms

In the context of BDD, 10-14 % of patients present to a dermatologist requesting aesthetic-cosmetic surgery, most frequently of the nose or breasts. Other reasons for consultation include workup and treatment of hair disorders such as hair loss or hypertrichosis. It is the eczematous skin lesions resulting from repetitive obsessive-compulsive manipulation inflicted by the affected individuals themselves that eventually lead to their seeking medical treatment in the first place. It is not surprising that BDD is considered a “secret” disease, and that up to 15 years may pass between onset and diagnosis. During this time, some of the affected individuals have already undergone several “cosmetic surgeries”. However, there is persistent discontent with their own physical appearance, and partly also with the “corrective results” [29].

Pathogenesis

Apart from phenomenological similarities with OCD, dermatillomania, and trichotillomania, there is also evidence pathogenetically linking BDD to these disorders. This is currently being critically discussed with regard to DSM-V [30, 31]. Patients with BDD also respond to treatment with serotonergic agents such as clomipramine or SSRIs, which suggests a dysfunction of central serotonergic neurotransmission as a possible etiological factor.

There is a plethora of psychological models aimed at explaining the development of BDD; however, none is considered substantiated and generally accepted.

Traumatic experiences in early childhood, such as neglect, sexual abuse, or interaction and attachment disorders in relation to important attachment figures seem to be involved in the development of BDD. Moreover, lack of self-esteem as well as body image disorders resulting from perception disorders and erroneous attribution of physical sensations have also been implicated. Given that a large percentage of affected patients are unaware of their internal psychological conflicts or even fend them off, they stick to a somatic disease model. In order to achieve a trustful therapeutic relationship, this should be taken into account. In particular, the multifactorial dimensions of BDD should be conveyed to the patient early on, for example, in the context of psychoeducation during behavioral therapy [29].

Treatment and therapy

As mentioned above, due to their skin disorders, a considerable percentage of primarily psychiatric patients more frequently (and also earlier) presents to a dermatologist rather than a psychiatric hospital or clinic. Accordingly, in order to prevent chronification, dermatologists should be the ones to inform these patients as early as possible about the possibility of and necessity for psychopharmacological and psychotherapeutic treatment. This is frequently met by considerable resistance on the part of patients, as they generally have a clearly somatic disease concept. Here, psychoeducative measures have proven to be helpful in breaking the ice by informing the patient about the relationship between body and soul, and conveying an individual biopsychosocial disease model. This also includes knowledge about current evidence-based treatment strategies for the various clinical disorders.

With respect to the treatment of OCD and related disorders, pharmaceutical as well as (behavioral) psychotherapeutic measures exist, by which an improvement and marked remission of symptoms may be achieved in 50-70 % of affected patients [3].

Psychopharmacotherapy

Today, selective serotonin reuptake inhibitors (SSRIs) in combination with behavioral therapy are considered standard treatment for OCD [11, 14]. Despite larger differences in therapeutic response, and partly missing evidence of efficacy in larger placebo-controlled trials, SSRIs (Table 3) are also drugs of first choice in trichotillomania, dermatillomania, and BDD. As an alternative to SSRIs, the tricyclic antidepressant clomipramine is also frequently used because of its serotonergic effect [27]. With respect to using these serotonergic antidepressants, their long therapeutic latency (up to 12 weeks) as well as the high doses required in some patients have to be taken into account. In the context of dermatological disorders, it should be born in mind that SSRIs, although generally well tolerated, may cause alopecia, pruritus, erythema in allergic reactions, and increased photosensitivity [32].

Other therapeutic options, though less evident and off-label, include other antidepressants with a serotonergic component such as venlafaxine and duloxetine (SNRIs), MAO inhibitors, or also lithium [27]. The use of antipsychotics such as pimozide, risperidone, clozapine, olanzapine, and aripiprazole in the treatment of OCD spectrum disorders is more complicated. With the exception of trichotillomania (Table 3), the aforementioned antipsychotic agents have proven to be ineffective when used alone. On the other hand, when used in combination with (or for the augmentation of) an SSRI, they can lead to marked clinical improvement, especially in patients who show little acceptance for their obsessive-compulsive symptoms. In trichotillomania, exclusive use of risperidone or aripiprazole has also been shown to lead to symptomatic improvement. As the results regarding the efficacy of antipsychotics in OCD and related disorders are generally inconsistent, and as there is evidence that they can also actually trigger obsessive-compulsive symptoms, they cannot be recommended as agents of first choice, and should only be given when there is a clear indication [17]. Given the lack of controlled studies as well as inconsistent previous results, the significance of N-acetylcysteine (glutamate modulator), dronabinol (cannabinoid agonist), and bimatoprost (prostaglandin derivative) in trichotillomania cannot be assessed; at least, their use as well-founded therapeutic option is currently not recommended [33]. Overall, it must be emphasized that the number of cases included in many of these studies is rather small. The generalizability of the corresponding results must therefore be critically assessed. Larger studies are required.

Psychotherapy

By contrast, multimodal behavioral therapy has proven to have positive short-term as well as long-term effects on OCD

Table 3 Frequently used psychopharmaceuticals according to current literature.

	Drugs of first choice	Other agents (off-label)
Obsessive-compulsive disorder	<p>SSRI:</p> <ul style="list-style-type: none"> ▶ Citalopram: 20–60 mg daily ▶ Escitalopram: 10–20 mg daily ▶ Fluvoxamine: 150–300 mg daily ▶ Fluoxetine: 20–60 mg daily ▶ Paroxetine: 20–60 mg daily ▶ Sertraline: 100–300 mg daily <p>TZA:</p> <ul style="list-style-type: none"> ▶ Clomipramine: 150–300 mg daily 	<p>SNRI:</p> <ul style="list-style-type: none"> ▶ Venlafaxine: 75–150 mg daily ▶ Duloxetine: 30–120 mg daily <p>Antipsychotics (only for augmentation):</p> <ul style="list-style-type: none"> ▶ Pimozide: 5–10 mg daily ▶ Risperidone: 1–3 mg daily ▶ Olanzapine: 2.5–10 mg daily ▶ Aripiprazole: 5–10 mg daily ▶ Quetiapine: 25–750 mg daily ▶ Ziprasidone: 20–80 mg daily
Body dysmorphic disorder	<p>SSRI:</p> <ul style="list-style-type: none"> ▶ Fluvoxamine: 150–300 mg daily ▶ Fluoxetine: 20–60 mg daily ▶ Citalopram: 20–60 mg daily ▶ Escitalopram: 10–20 mg daily <p>TZA:</p> <ul style="list-style-type: none"> ▶ Clomipramine: 150–300 mg daily 	<p>SNRI:</p> <ul style="list-style-type: none"> ▶ Venlafaxine: 75–150 mg daily <p>Antipsychotics:</p> <ul style="list-style-type: none"> ▶ Pimozide: 5–10 mg daily ▶ Risperidone: 1–3 mg daily
Trichotillomania	<p>SSRI</p> <ul style="list-style-type: none"> ▶ Fluvoxamine: 150–300 mg daily ▶ Fluoxetine: 20–60 mg daily <p>TZA</p> <ul style="list-style-type: none"> ▶ Clomipramine: 150–300 mg daily 	<p>Antipsychotics:</p> <ul style="list-style-type: none"> ▶ Risperidone: 1–3 mg daily ▶ Aripiprazole: 5–10 mg daily ▶ Ziprasidone: 20–80 mg daily <p>N-acetylcysteine: 1,200–2,400 mg daily</p>

spectrum disorders [34]. Here, confrontation procedures (exposure exercises with reaction prevention, habituation training), operant techniques such as stimulus control in trichotillomania, as well as cognitive techniques (thought stopping, self-instruction training) should be used in combination and also be carried out with the patient. Furthermore, relaxation techniques such as progressive muscle relaxation according to Jacobsen or autogenic training as well as the development of strategies for coping with stress and problems is recommended in this patient group. The efficacy of various other forms of psychotherapy such as psychoanalytical and depth psychology-based procedures, person-centered psychotherapy, or hypnosis, can currently only be assessed on the basis of case reports. In the treatment of OCD and related disorders, they are thus not considered evidence-based and can generally not be recommended.

Dermatological treatment

In patients affected by compulsive washing and cleaning, lipid-replenishing measures (creams, ointments) should be

applied for skin protection as well as zinc-containing ointments or pastes for mild dermatitis lesions. Here, it should be taken into consideration that many patients with a washing and cleaning compulsion show a pronounced loathing for “anything greasy”. It is therefore often difficult to convince OCD patients to use lipid-based emulsions. Although affected individuals at times vigorously insist on being prescribed gloves (latex, cotton), this should be declined, as it only reinforces their avoidance behavior. In severe eczema, depending on the severity of inflammatory lesions, use of topical or also systemic corticosteroids is indispensable (see current European S3 guidelines [35]). The latter should only be given for a short time and only under close supervision, as corticosteroids may lead to mood swings ranging from manic states to severe depression, especially in patients with psychiatric disorders. An older tricyclic antidepressant with sedative and anxiolytic effects (dose: 25–300 mg every day), doxepin is an interesting drug in the context of psychodermatological disorders, as it may also be effectively used for pruritus. In trichotillomania, local application of minoxidil 2 % may promote hair growth [27].

Although merely symptomatic, dermatological treatment in patients with OCD spectrum disorders and additional dermatological symptoms can be considered crucial. On the one hand, it may provide affected individuals with the affirmation of being taken seriously regarding their disease perception; on the other hand, it presents a possibility to educate and inform the patient, thus facilitating a willingness for further psychiatric/psychotherapeutic treatment.

Conclusions for daily clinical practice

- ▶ A considerable percentage of patients with OCD spectrum disorders initially seeks medical help from a dermatologist, resulting in two essential tasks: early detection of an underlying psychiatric disease as well as initiation of psychoeducative measures in order to convey a biopsychosocial disease model.
- ▶ Due to many phenomenological and pathophysiological similarities, OCD and related disorders such as trichotillomania, BDD, and dermatillomania represent a disease group of their own. Another similarity is the fact that all of these disorders can readily be treated with a combination of serotonergic psychopharmaceuticals and behavioral therapy.
- ▶ Interdisciplinary cooperation between dermatologists, psychiatrists, and psychological psychotherapists is essential for the effective treatment of these patients. Special psychodermatological consultation hours – such as those established at the Department of Dermatology at the University Hospital Bochum for years – or a cooperation of special OCD clinics with dermatology departments could present a helpful solution in the care of these patients.

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