Pathomimesis: psychiatric and medico-legal interference in dermatology

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Abstract: Psychodermatology deals with the psychological causes of cutaneous disorders and the patient’s psychological predisposition to suffer from skin diseases. Dermatologic disorders can be purely somatic or somatic diseases with a noticeable effect on the psyche, somatic disorders with emotional trigger factors, as well as exclusively psychological illnesses. The skin is considered a “mirror of the soul” and the connection between the skin and the nervous system has been demonstrated. Between 20-40% of the patients in the dermatology wards have some type of psychiatric problem, therefore physicians must be familiar with these disorders and with the proper ways to approach the patient, in order to establish an accurate diagnosis and treatment method.

The present paper describes the most commonly encountered psychodermatological disorders, both in terms of symptoms and clinical signs, and of the psychiatric and forensic ramifications. Further progress has been made in understanding and treating these diseases situated at the interface of dermatology and psychiatry.

Key Words: psychodermatological disorders, self-inflicted injuries, pathomimesis

Pathomimesis refers to any dermatological illness in which psychological factors play an important part. It is estimated that effective care of at least one third of the patients in dermatology wards depends on the recognition and treatment of emotional factors [2].

Even though they both originate from the ectoderm, the skin and the nervous system are linked not only by their common origin. If the skin is affected by a severe dermatological disease, it is followed by psychological sequelae, with a severe impact on self-esteem, confidence and quality of life in general.

The CNS can influence the health of other systems and organs, the skin included. The psychological mechanisms of this interaction vary from the stress response mediated by neuroadrenal connections and associated changes of the immune function, to the systemic and local action of some neuropeptides and neurohormones.

Between 20-40% of the patients in dermatology wards have a psychiatric or psychological condition that determines or complicates current symptoms. A significant number of them disagree with the potential psychogenic origin of the symptoms and are often reluctant to accept any psychiatric reference.

Therefore, the dermatologist must be familiar with the most common of these diseases, their clinical manifestations (psychological and dermatological) and the basic principles of their treatment [1].
The clinical aspects and lesion localisations can vary to a great degree, some of them resembling closely the lesions found in certain dermatological diseases. The most frequent are: deep excoriations, produced by scratching an ordinary cutaneous lesion, wounds caused by applying chemical agents (caustic soda, acids, hot liquid etc.) or plants with caustic effects, as well as genuine cutaneous wounds caused by cutting or puncture. Pathomimesis fall into two categories: the patients inflict cutaneous lesions upon themselves, claiming that they are the result of a work accident, or present them as an argument to be hospitalized or exempted from work; the patients sustain and aggravate pre-existing lesions (by prolonged scratching, by applying irritant substances or substances they know they have an intolerance to), in order to prolong hospitalization, the medical leave or work exemption.

The characteristic clinical aspects are: unusual positioning of the lesions, their bizarre aspect, complete lack of other clinical or paraclinical elements to support the feigned disease, the psychosocial context the illness emerges in, the placement of the lesions only in areas that are accessible to one’s own hands, the patients’ indifference towards his injuries and the way they occurred, as well as the fact that the injuries are not life-threatening and hesitation wounds are often found. The means of producing these lesions include: scratching, scarification, burns, contact dermatitis, ulcerations (by cutting oneself with a razor), alopecia (manually pulling out the hair), edema and stasis dermatitis of lower limbs (by applying a tourniquet at calf level) [5,10].

Malingers could aim to: obtaining disability pension or sickness allowance, sick leave, insurance compensations, a certain job position, pity, be exempted from mandatory military service, avoid court appearance or serving sentences [10].

The physician must give the examinee the impression that the latter’s symptoms are real, that is they should not appear to be suspicious. The examination must be carried out without brutality, threats or preconceived notions regarding the feigned disease; the exam should be performed in detail, making use of all the modern methods of clinical and laboratory investigation, possibly even hospitalizing the supposed patient for continuous monitoring.

Psychodermatological disorders can be divided into five categories, as follows:
1) Psychological illnesses, which include skin diseases that are aggravated by emotional factors (eg, psoriasis)
2) Primary psychiatric disorders, which refer to patients without a primary skin disease, in which the cutaneous injuries are self-inflicted (delusions of parasitosis, body dysmorphic disorder, trichotillomania, neurotic excoriations)
3) Secondary psychiatric diseases, in which the patients develops psychological symptoms if they had a skin disease resulting in physical disfigurement (vitiligo or alopecia areata)
4) Sensory cutaneous disorders, in which the patient presents with a sensitive symptom (itching, burning, stinging), without clinical evidence of a primary skin disease or of underlying medical conditions (vulvodynia).
5) The administration of psychotropic drugs in pure dermatological diseases (the use of psychopharmacological agents as doxepin or amitriptyline in cutaneous diseases, like urticaria or postherpetic neuralgia) [6].

The delusions of parasitosis is a psychiatric disorder where the patient is convinced that he is infested with parasites, in the absence of any objective evidence [6]. Most patients suffer from a primary disease called monosymptomatic hypochondriacal psychosis. This condition can be part of the clinical chart of dementia, and should be taken into consideration in an elderly patient [2].

The delusions of parasitosis is a rare disease, usually displayed in middle-aged or older women, often from the high socioeconomic classes. In younger individuals, the men:women ratio is equal. These patients should be examined for drug abuse, although their symptoms may be early signs of a severe mental illness [2,3].

Cutaneous manifestations vary. They often reflect unsuccessful attempts to treat the disease, namely injuries ranging from light excoriations to large ulcers, including lesions resulting from topical treatments applied by the patient in order to escape the perception of the parasite infestation [1]. Usually, the patient brings a small box or bottle in which he has meticulously kept all skin parasites, but microscopic examination
will only reveal skin or hair fragments, various materials, coagulated serum components, dust or dirt [2,3].
The patients elaborately describe how the parasites mate, move through the skin and sometimes surface [4].
Their skin smells of organic solvents, such as benzyl benzoate or insecticide spray, and their hands of disinfectant substances. Another characteristic is represented by the finding of a localized or generalized contact dermatitis.

Initially, the physician must ensure that the patient does not present with a parasitosis (frequently scabies or onchocercosis). Most of the times, the anamnesis, clinical behavior, physical examination and sample presentation make the diagnosis clear [2]. Other causes of pruritus that have not been investigated so far must be excluded.

The differential diagnosis includes schizophrenia, psychotic depression, drug-induced psychosis and other psychoses, formication [4,6].

It is very important to establish a psychiatric diagnosis before introducing a treatment. The treatment of choice is an antipsychotic drug called pimozide; it is very effective, especially in alleviating formication [4]. Other used drugs include sulpiride and atypical antipsychotics (risperidone, olanzapine and quetiapine) [2,4].

Although the disease is considered to be chronic and difficult to treat, patients have a good healing rate after an adequate pharmacological therapy is applied [1].

**Body dysmorphic disorder** is a disease in which a person with normal physical traits is overly concerned with an imaginary physical flaw or a small anomaly.

It is estimated that 1% of the population and 10% of the patients in dermatology wards suffer from this disorder. These patients are often young and unhappy [3].

The patients are usually socially isolated and exhibit an obsessive behavior (spending too much time in front of a mirror or repeatedly searching for imperfections) [6].

They complain about the existence of symptoms one would find especially on the face and scalp area, and they include burning, enlarged pores, blood vessels, scars, excessive facial hair growth, excessive hair loss from their scalp, a discomfort in the genital area (vulvodynia, scrotodynia), fear of venereal diseases (syphilis, HIV) [2,3]. Many patients are convinced that other people notice and comment on their „flaw”. Suicid attempts are frequent [1]. The patients lack discernment and subject themselves to a large number of procedures in order to correct their deformity. It is important that the plastic surgeons recognize the disease and do not take advantage of the patients by proceeding with multiple expensive procedures [6]. However, if these procedures are performed, the patient is not satisfied and an exacerbation of the symptoms may even appear [1].

Unfortunately, this disease is diagnosed in its late stage as patients are reluctant to expose their flaw, are ashamed and embarrassed. A clinical clue is the fact that the patients obsessively come back to the doctor for a small, insignificant lesion. An underlying condition should be excluded [2,3].

The management of these patients is difficult. The physician must earn the patients’ trust, constantly reassuring them that their problem is taken seriously [3]. The treatment is multimodal. Good results were observed after prescribing selective serotonin reuptake inhibitors (SSRIs) [1] or antipsychotic agents. Patients with somatic pain (vulvodynia, scrotodynia) may benefit from treatment with tricyclic antidepressants such as clomipramine or, as an alternative, gabapentin. The dermatologist cannot recommend these drugs. Any physician who wishes to prescribe psychotropic medication for dermatological patients has the ethical obligation to attend a special course for the use of these agents [3].

Body dysmorphic disorder is a chronic condition that does not show evidence of spontaneous remission without treatment. Medicamentous treatment using appropriate drugs can lead to its improvement in a large number of patients [1].

**Trichotillomania** is, according to DSM-IV, a chronic disorder characterized by the compulsive urge to pull out one’s own hair leading to noticeable hair loss, psycho-emotional stress, and social or functional impairment. The patients experience tension just before pulling out the hairs or during the attempt to resist this impulse, and a sensation of pleasure or relief after this process [1,5]. The clinician must determine the nature of the underlying disease, the most frequent being an obsessive-compulsive disorder.
The prevalence rates of this disorder are difficult to assess, but they are considered to be between 0.5% and 3.5%, with an average age of the onset between 10 and 13 years old.

In clinical terms, trichotillomania is characterized by nonscarring alopecia, with broken hairs of different lengths. The involved areas include the scalp, eyelashes, eyebrows, pubic hair, with several regions simultaneously affected.

In unaffected areas, the hair has a normal aspect [1,6]. In some cases, patients ingest the plucked hairs, a condition known as trichophagia.

Skin examination is important for the diagnosis. It shows a change in the hair root called trichomalacia [4].

The differential diagnosis is obtained with other causes of alopecia circumscription without scarring, such as alopecia areata or tinea capitis [6].

The treatment includes self-monitoring, training the patients to perform other activities when they have the urge to pluck hair, relaxing therapy [4].

Hypnotherapy can be very effective, especially in children [1]. Pharmacotherapy is based on the nature of the underlying disease, and therefore the patients are prescribed drugs that are used to treat obsessive-compulsive disorders, such as fluoxetine, paroxetine, fluvoxamine, sertraline and clomipramine [4]. Combined therapy may prove to be effective, but currently there are not enough studies in this regard. It is also important to take note of the fact that some drugs may exacerbate the disorder.

Dermatitis artefacta is a psychodermatological disease in which patients self-inflict cutaneous lesions in order to satisfy a psychological need they are not always aware of. If asked, they will deny their participation in this process. Most patients suffer from borderline personality disorder. Given the lack of cooperation and disclosure of the truth, this disease is difficult to diagnose and treat [6].
The disease prevails in the female gender, and the onset can occur from puberty until adulthood [1]. The lesions are polymorphic and can mimic any dermatosis. Thus, one can find erosions, ulcers, burns, haemorrhagic lesions or abscesses. They may be single or multiple, unilateral or bilateral, located within the reach of the patients and are made at their own hand or with an auxiliary external agent; the locations of choice are on the face (most commonly cheeks), arms and breasts. The methods by which they can be achieved are: the application of chemicals, the injection of urine, faeces or milk. Cigarette burns are very common; the physician should be suspicious of lesions with a diameter equal to that of a cigarette. Self-inflicted ulcers are usually extremely irregular. Another characteristic is the lack of response to therapy [3,6].

The differential diagnosis is obtained with herpes simplex, bullous disease, porphyria cutanea tarda, vasculitis, pyoderma gangrenosum, Münchausen syndrome (the patient intentionally mimics the signs and symptoms of an illness in order to obtain treatment, but without any apparent reason), Münchausen syndrome by proxy (an individual causes lesions to another person) [2,3].

Initially, the doctor should have a supportive, empathic approach. Direct confrontation and displaying suspicion of the self-inflicted damage lead to the patients’ withdrawal, as they will give up treatment. At first, frequent visits to the doctor and topical treatment are recommended. However, the physician should not encourage this behavior and eventually, the patient’s role in the appearance of lesions must be brought into question. The aim is to establish a relationship of trust with the patients, so that they accept to see a psychiatrist [1].

Initially, local treatment is administered in order to cure current lesions. If an underlying psychiatric disorder is present, a treatment with antipsychotics, antidepressants and/or anxiolytics is to be determined [6].

**Neurotic excoriations** represent a disorder where the patient self-inflicts cutaneous lesions through repetitive, impulsive excoriations. These patients admit to their role in producing the lesions. Typically, the patients are suffering from depression or anxiety [1,4].

![Figure 3. Traumatic nail injury (repeated trauma, probably when having a manicure done)](image-url)
This condition is found most often in middle-aged women, with an illness onset between the ages of 30 and 50 years old, but the disease may be present even up to 10 years before coming to the doctor. The patients are described as rigid and obsessive, with repressed emotions, they have difficulties in communicating their issues, they are violent, but insecure at the same time [2].

From a clinical point of view, the lesions are polymorphic, ranging from a few millimeters to several centimeters and can be observed at all stages of development, from small superficial erosions (prurigo simplex), to linear or circular deep ulcerations with hypertrophic edges, or hypo/hyperpigmented scars, usually located on the neck, chin, shoulders, arms, scalp and buttocks [2,6].

It is important to exclude excoriations caused by generalized pruritus, bullous diseases (pemphigus) and linear excoriated lesions that can be found in lichen planus or lupus erythematosus.

In terms of treatment, supportive psychoterapy induces a significant improvement, while performing a detailed analysis can exacerbate the symptoms [7]. Cognitive behavioral therapy has had good results in some patients, but the treatment of the underlying psychiatric disorder requires a psychotherapist’s skills. If the disorder is of a compulsive nature, it responds well to antidepressants, particularly to SSRIs (fluoxetine, fluvoxamine and citalopram). Doxepin and clomipramine are also used [8].

Excoriated acne represents a subclass of neurotic excoriations, where the lesions are to be found especially on the face, more frequently in women. Brocq described the excoriated acne in 1891 as occurring under the influence of emotional stress among young adolescent women [2,6].

Clinically, the lesions are located on the forehead, hair implantation line, cheeks and chin. Their extension to the neck and occipital area is common. Chronic lesions present atrophic scars and peripheral hyperpigmentation [2].

The disorder is often associated with an obsessive-compulsive disorder, therefore doxepin or SSRIs are prescribed. In addition, an aggressive treatment of acne is performed, especially with systemic antibiotics and isotretinoin. The benefits of supportive therapy and psychotherapy should not be underestimated [9]. If the underlying disease is not treated, the recurrence of the acne is followed by the relapse of the excoriated acne [6].

References