# Dermatitis Artefacta: A Practical Guide for Diagnosis and Management

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Received: August 22, 2022
Accepted: December 15, 2022

**ABSTRACT** Dermatitis artefacta (DA) is a psycho-dermatologic condition based on patients' behavioral patterns, characterized by an intentional production of cutaneous lesions on their own skin. The clinical presentation can be highly variable. Patients with DA seldom seek psychological support or psychiatric consultation. More often, they seek help from their primary care physician or dermatologist. This review article aims to provide a practical guide for the diagnosis and management of AD and affected patients. A broad literature search was performed using the PubMed and Google Scholar electronic online databases, using key words "dermatitis artefacta", "diagnosis", "management", and "psychodermatology". The search was limited to English and Spanish language articles and was supplemented with themed books and book chapters. DA can occur in a variety of clinical presentations, and physicians should suspect DA in patients with a history of psychiatric disorders or extensive use of healthcare services. The ultimate goal of DA treatment may be a proper referral to mental health services. However, the prognosis is poor even when successful mental health referrals are achieved, with low recovery rates. A useful approach may include the suggestion that a mental health provider can help with the anxiety and the distress generated by the lesions: in this case in this case it will be crucial to discuss this with the mental health provider after obtaining informed consent from the patient. Considering the difficulty in promoting patients' adherence to treatment, the ideal setting for DA treatment is a psycho-dermatologic clinic, where both dermatologic and psychological interventions can be seamlessly integrated.

**KEY WORDS:** dermatitis artefacta, psychodermatology, psychopathology, diagnosis

## INTRODUCTION

Dermatitis artefacta (DA) is a psycho-dermatologic condition based on the patients' behavioral pattern characterized by an intentional production of coetaneous lesions on their own skin (1). It is classified as

a factitious disorder, which means that patients are fully aware of their own behavior and may make efforts to disguise their responsibility in the production of the lesions. It has been argued that patients may cause self-harm for internal motives (i.e., assuming the role of a patient), in contrast with malingering, in which patients present similar behaviors in order to obtain secondary gain (e.g., sick leave, disability benefits, insurance payments) (2). While diagnosis can be established after a thorough exploration of the patient's history and an careful examination, DA treatment may be challenging for clinicians not specifically trained in psycho-dermatology.

Patients with DA seldom seek psychological support or psychiatric consultation. More often, they seek help from their primary care physician or dermatologist. This article aims to provide practical guidance regarding the diagnosis and the treatment of this challenging clinical condition.

## PRESENTATION

Among factitious disorders, DA usually presents an insidious course, although episodes of self-induced lesions are usually intermittent (2). The diagnosis may be difficult since patients do not seek help because of their low insight, and the referral to a psychiatrist may be unusual given patient's refusal to recognize the psychological trigger of this disorder.

Unfortunately, even when successful referrals are achieved, prognosis may remain poor, with low recovery rates, particularly after a late diagnoses (3,4). Patients with personality disorders appear to be more refractory to treatments than those with depression, anxiety or substance use (5).

### Demographic features

DA is more often reported in female patients (6), but the ratio of women to men may vary significantly, ranging from approximately 3:1 to even 20:1 (7,8). It has been reported that it is more prevalent in single individuals with low income, unemployment, and lower educational level (9). The age of onset is commonly reported as early adulthood in all races and ethnicities, although a study from the USA suggested a markedly higher prevalence of all factitious disorders among Caucasian individuals (10).

### Psychological features

This condition belongs to a group of psychiatric disorders leading to secondary skin manifestations. It has been argued that patients may attempt to fulfil an unconscious emotional or psychological need through the skin lesions. This condition includes two features: (a) the absence of a rational explanation for the behavior, and (b) the patient's denial regarding the responsibility of producing the lesions (11,12).

Depression and personality disorders are frequently co-morbid conditions of factitious disorders (13). A previous psychiatric diagnosis should indicate the inclusion of DA in the differential diagnosis for clinical dermatologic presentations (14). A history of high utilization of healthcare services is often associated with this clinical diagnosis (4).

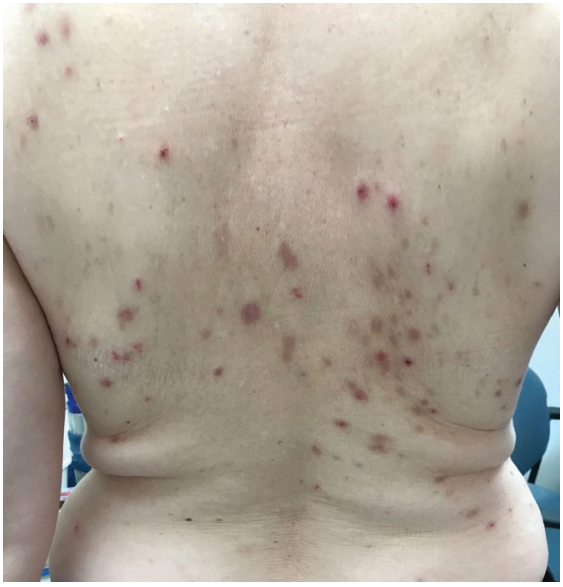

**Figure 1.** Excoriations in accessible areas of the dorsum. The patient does not recognize that she is responsible for the appearance of the lesions.

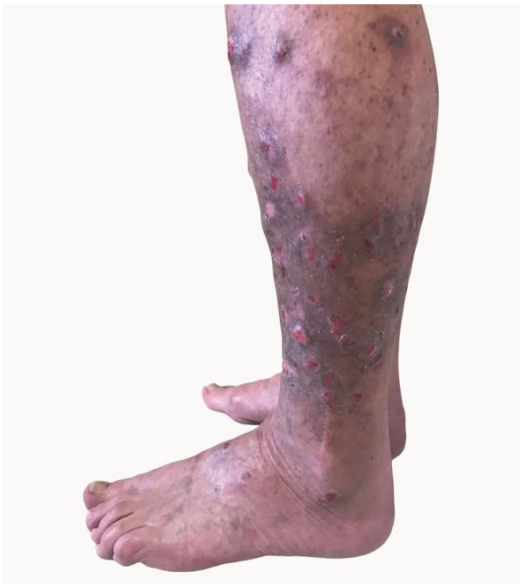

**Figure 2.** Lichenification is observed in the bilateral acral area, with clear signs of excoriation.

In the consultation setting, patients may be described as guarded and anxious, as they are attempting to disguise the origin and their responsibility for the lesions. In their personal and medical history, patients are not inclined to describe the origin and first stages of the lesions or add information regarding related psychological stressors (15). Prodromal stages are usually not reported, and lesions are described as starting in absence of witnesses. Any effort to elicit a more detailed and precise history as well as access any previous medical records may be met with refusal or hostility by patients with DA (16). Another striking feature of DA is known by the French term *la belle indifférence*, which is a misalignment between the patient's expressed level of distress and the severity of the disorder; additionally, patients may present as calm and complacent when describing lesions that would normally cause a prominent level of concern and worry. Another characteristic condition described in this disorder is the so-called melodramatic prophecy, in which patients appear to be able to forecast the site and time of the onset of new lesions (4).

## Dermatologic features

Lesions often present in bizarre shapes, with irregular outlines, and in a linear or geometric pattern clearly demarcated from surrounding normal skin. Lesions range from red patches, swelling, blisters, denuded areas, crusts, cuts, burns, and scars. Lesions do not evolve gradually but emerge almost overnight without any prior signs or symptoms (17,18).

The clinical presentation can be highly variable, and the lesions may be an expression of the patient's personal background, imagination, dexterity, previous experience, and availability of instruments. Skin lesions are usually symmetric and placed in body areas readily accessible to the dominant hand. Most common types of lesions related to DA are reported as the following (15,16,19-21):

*Excoriations* are the most frequent type. Lesions are linear, and patients may produce them using their nails or other sharp objects. They are symmetrical, and pruritus is absent (Figure 1). They may be complicated by secondary lichenification (Figure 2).

*Ulcers* are symmetric, geometric, punched-out lesions with atypical shapes. This is another frequent presentation of DA (Figure 3).

*Burns and blisters* (from acids, alkali, heat, cold, pressure, or friction) may present as specific shapes. When liquids are used, a "drip sign" can be present as their application can be hard to control. Blisters caused by corrosive substances characteristically show an abrupt margin between the injured and normal skin (Figure 4).

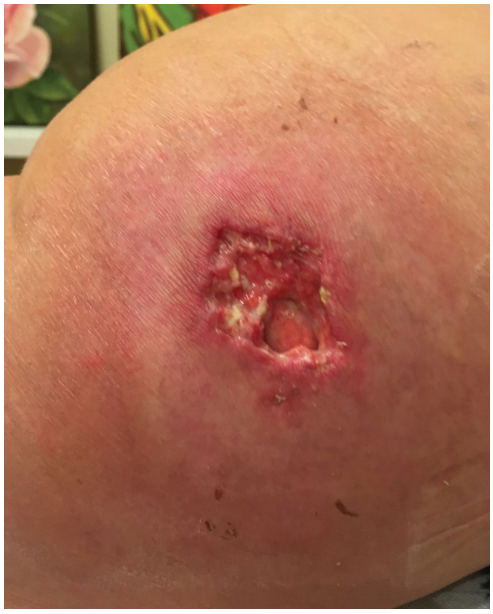

**Figure 3.** Ulcer in area accessible to the hand (gluteal area). Please note the stellate edges. No precise evolutionary data.

*Factitial cheilitis* can be due to biting, suction, burning, or lesions caused using various instruments. Patients can present with impetiginous lesions from superinfection of underlying lesions.

*Panniculitis* is developed after injection of various substances such as milk, baby oil, urine, or even toothpaste.

*Factitious lymphedema* is secondary to the use of ligatures or due to striking and squeezing the skin. Factitious lymphedema is usually unilateral and ends abruptly after removal of the self-made ligature (signs

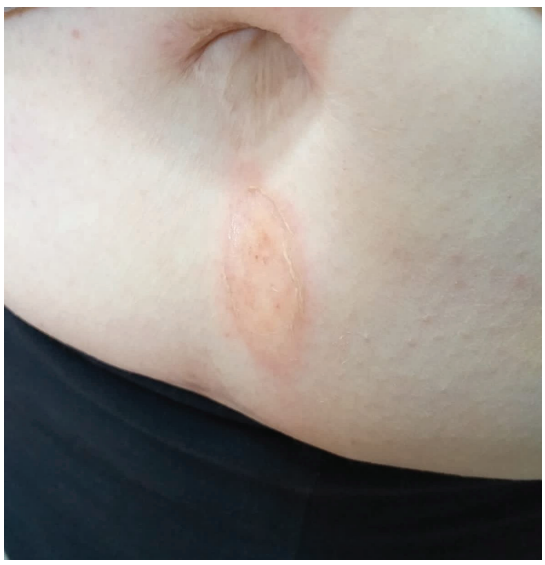

**Figure 4.** Unroofed infraumbilical blister accompanied by perilesional erythema.

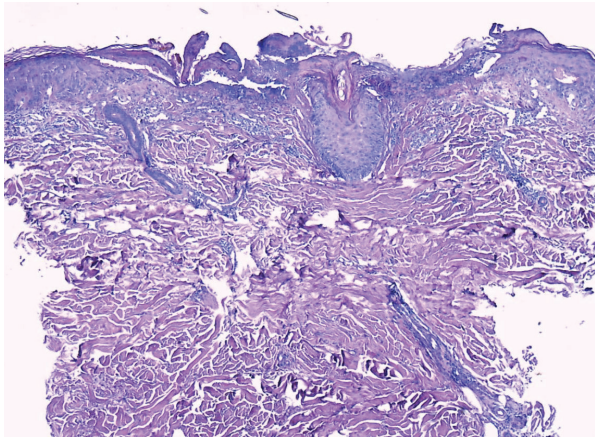

**Figure 5.** Panoramic view H-E X4: Ulceration with fibrinoleukocytic crust and torn corneal layer. In the right lateral direction there is clear delimitation. Scarce underlying infiltrate

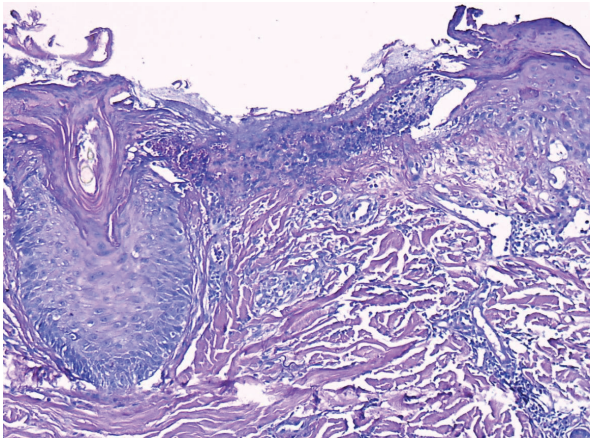

**Figure 6.** H-E X10: Detail of the lateral delimitation.

of contusion where the ligature was located might be observed).

Another clinical presentation may include multiple lesions appearing simultaneously. However, if the patient continues producing lesions, sometimes in response to challenges of suspicious clinicians, a pattern of clustering may be observed in the lesion's appearance. Continued observation and monitoring naturally leads to a cessation of symptoms and healing of the pre-existing lesions. Even if expected reaction would be that patients feel relieved by this outcome, they often feel more anxious, apprehensive, and eager to produce new lesions (15,16,19-21).

## DIAGNOSIS

There are no specific diagnostic criteria for dermatitis artefacta in the Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition (DSM-5) (2), but it is included in the more general spectrum of factitious disorders, which is coded as F68.10 in the International Classification of Diseases – 10$^{th}$ edition (ICD-10) (22).

A person with a factitious disorder presents false physical or psychological signs or symptoms or induces injuries or illnesses that are associated with an identified deception. The affected person presents themselves to others as ill, impaired, or injured. The person manifests deceptive behavior, which is evident even in the absence of obvious external rewards. Such behavior cannot be better explained by the presence of another mental disorder (e.g., delusional or other psychotic disorders) (2).

## Differential diagnoses

The psychiatric differential diagnoses to be considered are psychotic disorders (e.g., delusion of infestation) and skin-picking disorder. DA must also be distinguished from malingering.

In patients affected by delusion of infestation, they show a false belief that their skin is infested with pathogens. Skin scratching is followed by itching produced by the supposed infestation (23). The classic "matchbox sign" can be seen when patients bring their plucked skin in a box to demonstrate the evidence of an infestation to the physician (24).

Skin-picking disorder or excoriation disorder is characterized by the need or urge to scratch, pinch, touch, rub, squeeze, bite, or dig into the skin. Patients with this disorder feel compelled to perform these actions compulsively, resulting in tension relief, but also in lesions which cause pain and bleeding (25). A patient with an excoriation disorder takes responsibility for the creation of the lesions and requests help, while a patient with dermatitis artefacta does not recognize the nature of self-inflicted lesions.

In malingering, the intentional production of symptoms is clearly related to a primary benefit (for example, economic or legal). In contrast, the diagnosis of factitious disorder requires the absence of obvious rewards (19).

Other relevant dermatological differential diagnoses may include (19,26):

Contact dermatitis

Ulcers of venous etiology

Pyoderma gangrenosum

Occlusive vasculopathy

Vasculitis

Skin infections

Pemphigus

Parasitic infestations

Pharmacodermia and withdrawal syndromes

### Investigations

The exclusion of primary "organic" skin diseases is of paramount importance. Thus, the selective use of laboratory investigations, including cultures and biopsy, should aim to promote healing and, secondarily, to support the hypothesis of a factitious nature of the disorder. It is important to note that the work-up can often be inconclusive, and the diagnosis more frequently relies on the clinical and personal history as well as a detailed examination of the lesions (2,19).

### Pathology

When in doubt, there are certain histopathological data suggestive of dermatitis artefacta (Figure 5 and Figure 6). Factitious disorder should be considered if histological findings include blistering with a mild inflammatory infiltrate, rupture of collagen fibers, multinucleated keratinocytes, or elongated and vertically aligned keratinocytic nuclei (26).

## APPROACH TO MANAGEMENT

Management of DA may be difficult. This is mostly due to missing information and the patients' reluctance to be referred to mental health services, since they consider the issue to be strictly cutaneous. For some physicians, an instinctive reaction may be to assume the role of a "detective", as well as increase the intensity of the "probing" until the patient "breaks" and discloses the authorship of the lesions (21,27). These approaches mostly lead to an early break of the therapeutic alliance (16).

Cleaning the cutaneous lesions and addressing pain with analgesics may be more effective than the exploration of psychological issues and lead to a significant improvement in the patient-doctor relationship. The goal of any consultation should be to create a safe and non-judgmental framework in order to promote collaborative work with the patient. During the initial visit, it is important to provide the patient time to discuss the history of the lesions. The stressors leading to the production of lesions may be also identified at this stage through an active listening approach (9,13,19).

One successful strategy may be based on giving the patients "an out" by "assigning homework" focused on thinking about the potential causes of the symptoms: this approach may invite exploration of the role of psychosocial factors in the onset of the lesions. Confrontational interventions are often unproductive and should only be attempted by experienced psychodermatologists (19).

The ultimate goal is to finalize a successful referral to a mental health provider (either a psychologist or a psychiatrist): this requires that a strong therapeutic alliance has been built. Another useful approach may include the suggestion that a mental health provider can help with the anxiety and the distress generated by the lesions: in this case it will be crucial to discuss this with the mental health provider after obtaining informed consent from the patient. Considering the difficulty of promoting patient adherence to treatment, the ideal setting for DA treatment is a psychodermatologic clinic, where both dermatologic and psychological interventions can be seamlessly integrated. If these centers are not available, it is recommended to arrange a joint assessment at least at the first visit (28).

There are no medications specifically approved for the management of dermatitis artefacta. Psychopharmacological management will be guided by the patient's comorbid mental disorder. As a general rule, selective serotonin reuptake inhibitors (first-line) and tricyclic antidepressants (as second-line agents) may be useful for concurrent depressive or anxious symptoms. Aripiprazole or risperidone may be useful for the management of severe disruptive behaviors (19,29,30).

Adjuvant therapies in dermatitis artefacta may include acupuncture, cognitive-behavioral therapy (e.g., aversion therapy, systemic desensitization, or operant conditioning), biofeedback and relaxation therapy (e.g., for anxiety-related dermatitis artefacta), and hypnosis (31). Topical and oral antimicrobials (e.g., neomycin, polymyxin B, topical bacitracin, fusidic acid, cephalexin, erythromycin) should be considered as appropriate (19,30).

It should be noted that hospitalization may be necessary in some patients, depending on the severity of the skin lesions (32).

### Medico-legal implications

Relational issues between the physician and patient may occur after the disclosure of the diagnosis as well as after the attempt to refer the patient to mental health services. Three motivations have been identified by Eisendrath and McNeil (33):

Financial gain: the diagnosis should be changed into malingering if money is identified as the primary reason of the production of symptoms.

Anger and humiliation.

Simulating the illness in the courtroom rather than the hospital.

Proper supervision within a multidisciplinary team may support the physician in case of medico-legal issues. Another reason for legal issues may be the attainment or disclosure of previous clinical notes without the consent of the patient. While these decisions may be made in the interest of the patients, physicians should contact their medical defense unions before engaging in this practice (4).

## CONCLUSION

DA is a complex factitial psychiatric disorder which secondarily affects the skin. It can occur in a variety of clinical presentations, and physicians should suspect DA in patients with a history of psychiatric disorders or extensive use of healthcare services. Even if most of these patients will be seen by dermatologists or primary care physicians, the ultimate goal of DA treatment is a proper referral to mental health services; this article aimed to provide a useful framework for a correct diagnosis of DA and approach to patients with this disorder.

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