



Crack abuse-induced recalcitrant ulcers

History and clinical findings

A 29-year-old man presented with painful ulcerative lesions on the palmar aspect of both thumbs (Figure 1), measuring



Figure 1 Ulcerative lesion on the palmar aspect of the right thumb.

up to 2.5 cm in diameter. Partially covered with crusts, the ulcers had first appeared two months earlier, and – despite topical antibiotic therapy – had gradually grown in size. Physical examination revealed a number of ear expanders, nose and eyebrow piercings, a transdermal implant below the right eye, as well as multiple tattoos (Figure 2). The patient’s medical history was remarkable for alcohol abuse and addiction to various drugs, including ketamine, ecstasy, MDMA (3,4-methylenedioxy-methamphetamine), cocaine, THC, and crack.



Figure 2 Close-up of some of the patient’s tattoos.

Your diagnosis? ...

Diagnosis:

Lighter-induced second- and third-degree burns as a result of crack consumption in a patient with borderline personality disorder and polysubstance abuse [1]

Discussion

Several skin diseases are frequently associated with psychiatric disorders, and the term “psychodermatology” was coined to indicate various clinical conditions characterized by a link between skin and psyche [2–6] (Table 1). Particularly in the case of drug addiction, the skin may be directly or indirectly damaged. Direct damage is caused by a drug’s chemical properties and/or the instruments/tools used for its synthesis (for example, ulcers, nodules, vascular sclerosis) [7, 8]. On the other hand, indirect skin damage can be the result of the method by which a drug is consumed (for example, burns, vascular atrophy, dyschromia) [9–13]. Moreover, some skin conditions are directly related to drug withdrawal (for example, “turkey skin” in the case of heroin).

Our patient was a 29-year-old man who presented with ear expanders, nose and eyebrow piercings, a transdermal implant below the right eye, and multiple tattoos: in particular, the words “lost soul” were noted on the back of the fingers (Figure 2). Two months earlier, he had developed painful ulcerative lesions – partially covered with crusts and resistant to topical antibiotic therapy – on the palmar aspect of both thumbs. At the age of eleven, he had started taking drugs, initially drinking large amounts of alcohol, and subsequently

using ketamine, ecstasy, MDMA, cocaine, and THC (Tetrahydrocannabinol). Over the course of the previous spring, he had begun using crack, and the repeated use of a lighter – used in the process of vaporizing the drug – was responsible for the ulcerative lesions, which turned out to be second- and third-degree burns. Moreover, the patient’s personal and family history revealed a troubled social and psychological background: his father was an alcohol addict (ICD-10 F10.20) [1] with liver cirrhosis, who had separated from his wife when the boy was just ten years old. Since then, the mother had been affected by a reactive depressive disorder (ICD-10 F32.9) [1], which eventually resulted in her giving custody of the boy to the grandfather. At the age of eleven, the patient started abusing alcohol and, during adolescence, he moved on to THC, ketamine, ecstasy, and MDMA. When he was 18, he began covering his skin with multiple tattoos, many of which seemed to have a symbolic meaning. From a psychiatric perspective, the words “lost soul” on the back of his hands were interpreted to possibly represent a desire for recognition and maternal acceptance. Having experienced severe drug abuse as well as dysfunctions of consciousness and perception, impulsiveness, feelings of emptiness, and uncontrolled intense anger, he spontaneously presented to the Psychiatric Service for Addictions. Following psychiatric and psychometric assessment, including SCID-I (Structured clinical interview for DSM IV Axis I) [14], SCID-II (Axis II) and Frankfurter Beschwerde-Fragebogen (FBF)-based symptoms, he was diagnosed with borderline personality disorder (ICD-10 F60.3) and polysubstance abuse (ICD-10 F19.10) [1]. The patient was started on mood-stabilizers and systemic relational psychotherapy. He discontinued treatment several times, followed by renewed abuse of psychoactive substances and subsequent recurrence of skin lesions that required our consultation. It was our psychiatric colleague who turned our attention to the fact that our patient’s ulcers were caused by the lighter required to vaporize crack. The crystal form of cocaine, crack has become widely prevalent due to its low cost and easy consumption. Heated up, it produces a typical “crack” sound; it is then smoked through a bottle or can. Smoking enables the substance to reach the brain quickly, inducing an immediate “trip” that lasts for about 15 minutes. Because of this intense yet short-term effect, addiction can set in after the first consumption. Crack induces a brief “up phase”, followed by a “down phase” associated with irritability and obsessive craving. This was the reason why the patient, heedless of his injuries, continued vaporizing the substance with a hand-held lighter. While neurological evaluation showed no peripheral sensory deficits, it did reveal an altered state of consciousness as well as a distorted perception of reality. Although dermatologists are not commonly involved in treating such patients, recognition of typical signs of drug addiction is crucial with respect to adequate clinical management. In the present case, the correct diagnosis was

Table 1 Clinical categories of psychodermatology.

Psychophysiological disorders
The individual’s physiological emotional state (anxiety, fear, discomfort, sorrow etc.) is a contributing cause for the occurrence or the aggravation of the skin disease (acne, alopecia areata, atopic dermatitis, psoriasis, seborrheic dermatitis, urticaria).
Primary psychiatric disorders
Psychiatric syndromes cause self-defeating behaviors against the skin or annexes (cuts, scrapes, burns, trichotillomania, nail biting).
Secondary psychiatric disorders
Some skin conditions, especially because of their visible manifestations, cause impairment of life quality and mental illness (alteration of the oneself image, relational difficulties).

made due to the collaboration with the psychiatrist and his interpretation of the words written on the patient's skin.

Conflict of interest

None.

**Serena Lembo¹, Angela Patri², Anna Balato³,
Luciano Petrillo⁴**

(1) Department of Medicine, Surgery and Dentistry "Scuola Medica Salernitana", University of Salerno, Italy

(2) Department of Clinical Medicine and Surgery, University of Naples Federico II, Naples, Italy

(3) Department of Advanced Biomedical Sciences, University of Naples Federico II, Naples, Italy

(4) Department of Pathological Addictions, Simple Operating Unit of Psychiatric Comorbidity, Local Health Unit North Naples 2, Naples, Italy

Correspondence to

Angela Patri, MD
Department of Clinical Medicine and Surgery
University of Naples Federico II
Via S. Pansini 5
Naples, 80131
Italy
E-mail: patriangela.ap@gmail.com

References

- 1 World Health Organization: ICD-10 version 2010 website. Available from: <http://apps.who.int/classifications/icd10/browse/2010/en> [Last accessed November 23, 2016].
- 2 Ghosh S, Behere RV, Sharma P et al. Psychiatric evaluation in dermatology: an overview. *Indian J Dermatol* 2013; 58: 39.
- 3 Picardi A, Amerio P, Baliva G et al. Recognition of depressive and anxiety disorders in dermatological outpatients. *Acta Derm Venereol* 2004; 84: 213.
- 4 Koo JY, Lee CS. General Approach to evaluating psychodermatological disorders. In: Koo JY, Lee CS: *Psychocutaneous Medicine*. New York, NY: Dekker Inc., 2003: 1.
- 5 Harth W. Psychosomatic dermatology (psychodermatology). *J Dtsch Dermatol Ges* 2008; 6: 67–76.
- 6 Harth W, Taube KM, Gieler U. Factitious disorders in dermatology. *J Dtsch Dermatol Ges* 2010; 8: 361–72.
- 7 Thekkemuriyi DV, John SG, Pillai U. 'Krokodil' – a designer drug from across the Atlantic, with serious consequences. *Am J Med* 2014; 127: e1.
- 8 Pavenski K, Vandenberghe H, Jakubovic H et al. Plasmapheresis and steroid treatment of levamisole-induced vasculopathy and associated skin necrosis in crack/cocaine users. *J Cutan Med Surg* 2013; 17: 123.
- 9 Appel-da-Silva MC, D'Incao RB, Antonello VS et al. Gastrointestinal complications and esophageal stenosis after crack cocaine abuse. *Endoscopy* 2013; 45: 286.
- 10 Barańska-Rybak W, Błażewicz I, Kąkol M et al. Cutaneous manifestations of injectable drug use: hidden secrets. *Cutis* 2014; 93: 185.
- 11 Coull AF, Atherton I, Taylor A et al. Prevalence of skin problems and leg ulceration in a sample of young injecting drug users. *Harm Reduct J* 2014; 11: 22.
- 12 Trimarchi M, Bertazzoni G, Bussi M. Cocaine induced midline destructive lesions. *Rhinology* 2014; 52: 104.
- 13 Ulnik JC, Linder MD. The psychoanalytic interpretation of symptoms – evidence and benefits. *Acta Derm Venereol* 2016; 96(217): 22–4.
- 14 First MB, Spitzer RL, Gibbon M et al. *Structured Clinical Interview for DSM-IV Axis I disorders (SCID I)*. New York: Biometric Research Department 1997.