

DERMATITIS ARTEFACTA: A REVIEW OF 14 CASES

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Background: Dermatitis artefacta (DA) is a self-inflicted dermatologic injury sometimes produced for secondary gains. Laboratory investigations, including histologic examination of lesional tissue biopsy, are usually negative and do not give a clue to the correct diagnosis.

Patients and Methods: Over a five-year period, 14 patients were diagnosed with DA at King Fahad Hospital (KFH) in Al Baha during routine outpatient and inpatient dermatologic consultations. The diagnoses were based on vagueness of history given by the patients, and the presence of bizarre skin lesions distributed over sites accessible to the patients' hands. Investigations excluded the possibility of other diseases. In some cases, consultant psychiatric assessment was sought in order to identify possible underlying psychopathologic factors. Seven patients were hospitalized while the rest were managed as outpatients.

Results: The 14 patients comprised 12 females and two males aged 12 to 71 (mean 25.9) years. All except one were Saudis. DA in the males was probably caused for secondary gains. The females, four of whom were married and eight single, were aged 12-36 (mean 21.8) years. Nine of the females (64%) had identifiable severe emotional or psychiatric problems. The remaining two were unmarried and had no identifiable underlying factors.

Conclusion: This study reveals that the presentation of DA in Saudi Arabia is essentially similar to what has been reported from other parts of the world. It brings into focus a medical problem which needs to be recognized, as greater awareness may bring about earlier correct diagnosis and treatment.
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Key Words: Dermatitis artefacta, emotional/psychiatric problems, secondary gains.

Dermatitis artefacta (DA) is a self-inflicted¹ cutaneous injury sometimes produced for primary or secondary gains. It may also occur as a cry for help when emotional stresses become too great to endure.² Precipitating events range from simple anxiety to interpersonal conflicts and severe personality disorders, including compulsive behavior, depression and psychotic disturbances. Sometimes there are no obvious emotional or psychotic problems. The subjects are experts in producing and perpetuating skin lesions which are not easily diagnosed. First presentation may be in adolescence and may continue undetected for many years.¹ Factitious dermatitis has also been reported as the result of wilful or subconscious self-neglect through acts of omission rather than commission.³ DA is easily missed because of lack of awareness of the disorder on the part of physicians. It has rarely been reported⁴ from Saudi Arabia.

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Patients and Methods

The study was conducted at King Fahad Hospital (KFH), the main referral hospital for the Al Baha region of Saudi Arabia. The 14 patients were among other dermatologic patients examined and treated by the authors from May 1993 to September 1998. Detailed medical history included date and mode of onset, course and duration of the skin disorder, allergy and drug history, as well as family, occupation, and social circumstances.

On examination, the morphology and distribution of the skin lesions were recorded. Diagnosis of DA was based on the lack of precise history of the onset of the disease, and the presence of bizarre skin lesions located at sites accessible to the patients' hands. Consultant psychiatric assessment was sought for some of the patients to identify possible underlying psychopathologic factors. Seven of the patients were admitted while the rest were treated as outpatients. Appropriate laboratory investigations were done to exclude diseases considered in the differential diagnosis.

Results

Table 1 summarizes the data on the 14 patients.

TABLE 1. *Dermatitis artefacta: review of 14 cases.*

Case #	Sex/age (yr)	Site of lesion	Associated factors
1*	F/31	Breast	Marital separation; depression; psychosis; in psychiatric therapy
2*	F/18	Face, limbs	Depression; interpersonal conflict with parents and other family members
3*	F/15	Face, neck, back of hands	Interpersonal conflict with her schoolteacher
4	F/36	Left calf	Frequent emotional upsets; psychiatric therapy
5	F/25	Intermammary area and epigastrium	Divorced; schizophrenia; in psychiatric therapy
6	F/21	Forearms	Early marital depression
7*	F/14	Face (malar area)	Difficult relationship with her family members
8	M/30	Symmetrical leg ulcers	To gain release from employment contract
9*	M/71	Right leg	To be admitted to hospital
10	F/16	Face	Not determined
11	F/32	Right malar area	Not determined
12	F/25	Below left knee	Previous multiple unconfirmed somatic complaints (psychosis)
13*	F/15	Face, malar areas	Depression; school drop-out; withdrawn; refusal to discuss her problems
14	F/12	Trichotillomania of scalp	Difficult relationship with her family members

*Cases reported in detail.

Additional details are reported for cases 1, 2, 3, 7, 9 and 13.

Case 1

A 31-year-old female presented in May 1993 with a two-year history of recurrent ulcers on both breasts, the cause of which she could not explain. Her social and medical history revealed that she and her four children had been abandoned by her husband, and were living with her parents while she was receiving psychiatric treatment for depression and psychosis. Examination revealed multiple scars on her left breast (Figure 1), and a 1 cm well-punched-out ulcer associated with three smaller superficial ulcers on the right breast. There was exaggerated tenderness on light palpation, but without a palpable lump or lymphadenitis. DA was suspected and the patient hospitalized for further evaluation and treatment.

Culture of the ulcer grew *Pseudomonas* and *Enterobacter* species. The patient refused tissue biopsy. Routine laboratory tests were normal. Treatment with occlusive dressings completely healed the ulcers within three weeks. Psychotherapy by the consultant psychiatrist produced marked improvement in her general outlook. At follow-up visit two weeks later, the ulcers had recurred and were still present at two subsequent visits. She refused further admission and did not return for follow-up visits, but subsequently went to a hospital in Dammam from

where her case was published as the first case of DA in Saudi Arabia.⁴

Case 2

An 18-year-old female student presented in July 1994 with a two-year history of recurrent blistering eruption which left pigmented scars on the face, neck, upper and lower limbs. She denied the use of medications other than occasional paracetamol tablets for headaches and pains. A drug reaction to paracetamol was excluded by a challenge test. At a later date, she presented with complaints of hematemesis and pain below the knees which made walking difficult, and for which she was hospitalized. Physical examination and laboratory work-up were negative. Fresh symmetrical and identical skin lesions, 3.0x2.5 cm, started appearing while she was in hospital (Figures 2). As the patient could tell the exact time (e.g., 4 a.m.) when a particular lesion appeared, DA was suspected. Erythema multiforme bullosum was ruled out. Tzanck smear showed polymorphonuclear and mononuclear inflammatory cells. After repeated interviews with the psychiatrist, it became obvious that she was depressed and in conflict with her parents. She confided in a female interpreter that she produced the lesions by placing the base of a glass of hot tea onto her skin. The father became uncooperative and took her out of hospital against medical advice.

Case 3

A 15-year-old female student was hospitalized in October 1994, with a three-day history of symmetrical brownish macular patches and superficial excoriations on the sides of her face, chin, neck and back of the hands (Figures 3A and B), which she claimed appeared a day after her female expatriate school teacher touched her face and told her she was beautiful. A diagnosis of dermatitis artefacta was made. No fresh lesions appeared during two days of observation. She left hospital against medical advice and did not return.

Case 7

A 14-year-old female student visited the emergency room on four occasions, with skin lesions suspected to be self-inflicted. She was referred to the dermatology clinic for further evaluation but she never appeared. Six months later, she was brought to the dermatology clinic with fresh, slightly vesicular and erosive skin lesions on both malar areas which were described as "chemical burns" by the referring primary health care physician. However, the patient could not explain the cause. The lesions were treated as contact dermatitis with hydrocortisone viform cream. Shortly after, she returned with dark reddish brown smears on each cheek, which she claimed appeared two days earlier after a quarrel at school. She washed her face as requested, revealing only scratch marks beneath the smear. She smiled with no sign of embarrassment. The father revealed that she had been to several other hospitals

with the same problem, and in one of the hospitals the psychiatrist had suggested that her skin changes were "self-inflicted," which made her very angry. The father described her as quick-tempered, quarrelsome and unwilling to go to school.

Case 9

A 71-year-old male Saudi had been receiving treatment in our dermatology clinic for neural leprosy for more than four years. His past medical records revealed that the diagnosis was established by right sural nerve biopsy when he first presented with peripheral neuropathy, impaired pain sensation over the medial aspect of the right leg and dorsum of both feet without motor dysfunction, and well-defined leprosy skin lesion. He had been repeatedly seen by an internist and a neurologist in the preceding two years, sometimes in a wheelchair asking for hospitalization for multiple, unconfirmed, seemingly unrelated somatoform complaints, including right-sided weakness, monoparesis, urinary retention and inability to walk. Physical examination and laboratory work-up were negative. He came to the dermatology clinic in April 1996, with uniformly shaped, ovoid black (charred) ulcers on the medial aspect of the right leg. He could not explain their mode of onset. Eighteen days later, some of the ulcers, then in the process of healing, had developed into morphologically identical ovoid ulcers of approximately 2x1 cm (Figure 4). He still had patchy sensory loss without motor paralysis of that leg. He was hospitalized for observation and occlusive dressings, and was completely healed within three weeks. There has been no recurrence of the ulcers.

Case 13

A 15-year-old female presented to the dermatology clinic in April 1997, with a month's history of dry, scaly, desquamitous rash on each malar area, diagnosed as allergic irritant dermatitis, and treated with hydrocortisone vioform ointment. Three weeks later, she returned with dark brown to blackish paste on each malar area. The paste was removed with wet sterile gauze, leaving mild excoriations. The patient appeared sad, depressed and withdrawn, and refused to discuss her problems. We learned that she had dropped out of school in the fourth year. The diagnosis of dermatitis artefacta was no longer in doubt, and she was discharged without any treatment. A month later, she returned with an acute edematous vesicular rash on both malar areas, which she claimed appeared at 9 p.m. the previous night. She was given hydrocortisone vioform cream and chlorpheniramine maleate tablets. She did not return for follow-up visits.

Discussion

Of the 14 cases of dermatitis artefacta reported, females were more affected than males (12:2). The epidemiologic

and clinical characteristics observed in our cases were similar to those reported elsewhere.^{2,5,6} The female to male

FIGURE 1. Pigmented scars of healed artefactual ulcers (left breast).

FIGURE 2. Morphologically identical elevated vesicular burn patches (left side of face).

ratio of 12:1 among Saudi nationals was higher than previously published sex ratios of 7.6:1 by Sneddon and Sneddon,⁵ and 7.3:1 by Fabisch.⁶ The reason for self-mutilation goes beyond that of malingering.⁷ Patients appear to produce the skin lesions as an outlet for nervous tensions arising from interpersonal conflicts and/or unresolved emotional problems, compelling family members to seek medical care. For these patients, a cure of the dermatoses is less desirable than the disease itself. What they seek is sympathetic management and understanding.

FIGURE 3. Symmetrically distributed burns on A) the face, and B) back of hands.

FIGURE 4. Identical ovoid ulcers, right leg.

There appears to have been some profit motive for DA in the two males. One of the two males, an expatriate farm laborer, had been working in the Kingdom for two years without a vacation and missed his family. He confided in a fellow countryman that he hoped his employer might send him home because of two identical ulcers on the medial aspects of his ankles.

The various methods of producing the skin lesions are highly imaginative and depend on the patient's background, including level and type of education. Deep excoriations may be caused by fingernails, scarification or cuts by sharp instruments such as knives or pieces of glass, or burns with a cigarette, hot piece of metal or cup of tea. Freezing, chemical disinfectants and irritant plant concoctions are other methods used. However, patients do not usually reveal how they produce the lesions. One patient (Case 2) confided to the female interpreter that she placed a small glass of hot tea on her skin. In their methods, our patients differ from those reported from Western countries,⁸ who usually possess medical knowledge and have access to syringes, injectable drugs and other chemical substances.

The diagnosis of dermatitis artefacta may be difficult if the clinician is unaware of its existence. Diagnostic clues^{8,9} include denial, amnesia, or indifference to the symptoms or how the lesions occurred. The history may be vague (cited by Lyell¹⁰ as "hollow"), and include underlying emotional or psychological disorders. On examination, there are wide variations in the morphological appearance, depending on the method of cutaneous injury and

excoriations, and ulcers and scars of similar sizes and shapes (Figures 2 and 4) may not conform to any known cutaneous disease. They are sometimes located at unusual sites, easily accessible to the hands of the patient, and may be solitary or bilateral and symmetrically distributed. Healing or disappearance of the lesion while using occlusive dressing to limit the patient's access are additional clues (Cases 1, 4, 9). DA needs to be differentiated from primary skin infections and inflammations, contact dermatitis, actinic dermatitis, purpura, bruises and trophic or neuropathic ulcers due to metabolic disorders. The need for careful evaluation to identify organic disease has been highlighted by Cox and Wilkinson.¹¹

The dermatologic diagnosis of DA does not give a clue to the type of underlying psychopathologic condition, and has been reported in 3.7% of trichotillomania and in 3% of 457 mentally retarded institutionalized children and adolescents in one study.¹² Sometimes it is difficult to categorize certain forms of dermatologic injury. As recently reviewed by Koblenzer,¹³ there is a significant overlap between dermatitis artefacta and neurotic excoriations in patients with different psychiatric disorders.

The management of patients with DA has to be gentle, non-confrontational and flexible, and involves building a mutual trust and rapport between patient and doctor. Psychiatric treatment may be required.¹⁴ Koblenzer¹⁵ and Koo and Pham¹⁶ underscored the need for liaison between the dermatologist and psychiatrist. However, many patients become suspect at the mention of psychiatric referral and never return. Treatment of the skin lesions should be supportive, with cleansing and application of topical antibiotics if needed, and occlusive dressings to discourage access to the lesion.

The only previously published case of DA in Saudi Arabia was in 1994 in a female (Case 1).⁴ Clinicians should be vigilant because cases of DA may be passing unrecognized due to lack of awareness of the disorder. This condition requires further cooperative study, because there are still many more questions than answers.

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