Dermatitis Artefacta and Artefactual Skin Disease

The Need for a Psychodermatology Multidisciplinary Team to Treat a Difficult Condition

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Abstract and Introduction

Abstract

Background Dermatitis artefacta (DA) is a factitious skin disorder caused by the deliberate production of skin lesions by patients with a history of underlying psychological problems. The patient may not be fully aware of this, and the true extent of this disorder, especially in children, is currently unknown. Management of these patients is challenging as many fail to engage effectively with their dermatologist.

Objectives To explore the various clinical presentations and strategies employed to treat DA in our local population, and note outcomes in order to evaluate effectiveness of our management.

Methods A retrospective case note review was conducted of 28 patients attending the regional psychodermatology clinic at the Royal London Hospital from January 2003 to December 2011.

Results Out of 28 patients identified with DA, the majority of patients were female, and the most frequent sites for skin lesions were the face and upper body. Anxiety, depression and personality disorders were common underlying psychiatric diagnoses. Ninety-three per cent of patients were successfully managed (i.e. the DA resolved or was in remission at the time of writing) in our combined psychodermatology clinic by a multidisciplinary psychocutaneous medicine team. Thirty-two per cent of our cases were children (aged < 16 years) and one of these was referred to local child protection services; 46% of patients had a concomitant mental health disease at the time of presentation with DA.

Conclusions A multidisciplinary psychocutaneous team is important in this condition particularly as the patient is likely to require psychological intervention (to facilitate the resolution of the precipitant), in addition to dermatological (to make the diagnosis and, importantly, to exclude organic disease) and psychiatric (to manage concomitant psychiatric disease) input. Our findings indicate that our model of a psychodermatology multidisciplinary team will achieve greater successful treatment of patients with DA and we are the first to describe this important service in the U.K.

Introduction

The skin is a readily accessible and highly visible organ, and is therefore an ideal location for the expression of underlying psychological need, as is seen in dermatitis artefacta (DA). The skin lesions in this condition may be produced consciously by the patient, followed by an attempt to conceal and deny any involvement in their production. The subject may be aware that he or she is driven to create the lesions, or in some instances the activity may take place in a dissociated state outside the patient's awareness.[1]

Artefactual skin lesions often have a bizarre appearance. They can be linear or have a geometric outline and are often somewhat demarcated from normal skin. They are usually seen in areas that are available to the handedness of the patient. The lesions have a pattern of appearing suddenly on previously normal skin, and can occur overnight. Patients are usually vague about their disorder and recount a rather 'hollow' history.[2] They are unable to describe in detail when the lesions appear or disclose much about their development. DA and artefactual skin disease (ASD) are terms used to specify the dermatological expression of an artificially produced disorder, and are given a formal *Diagnostic and Statistical Manual of*

Mental Disorders-IV mental health diagnosis of a factitious disorder 300.19.[3] DA is not well understood, and is probably underdiagnosed due to diagnostic uncertainties. Also, the aetiology of DA is multifactorial with a strong psychological component, and its management can be challenging for clinicians. Our aim was to review the clinical presentation, management and outcomes of patients with DA in our local population.

Patients and Methods

We undertook a retrospective study of patients referred to the psychodermatology clinic at the Royal London Hospital and Whipps Cross Hospital between 2003 and 2011. To ensure consistency the first author was the sole analyser. Patient identification details were extracted from a database of all patients who attended the regional psychodermatology clinic. The diagnosis of DA was made from the clinical history and physical examination of skin lesions, and on the careful exclusion of organic disease. The criteria used to make the diagnosis of DA were based on bizarre-looking skin lesions on sites accessible to the patient, antecedent psychosocial events, which may have precipitated the problem, and an absence of alternative dermatological conditions to explain the lesions. Six patients (21%) had a skin biopsy taken to exclude organic disease. Details about the site and type of the skin lesions, age of onset, associated psychological factors, and outcomes were documented for each patient.

Results

A total of 28 patients were identified between January 2003 and December 2011. The patients were aged between 13 and 70 years, with the majority being female (24 female and four male).This roughly equates to one case per 3000 seen in both general dermatology departments, and one case in 12 patients seen in the psychodermatology clinic.

Superficial erosions, postinflammatory pigmentation and excoriations were the most common types of skin manifestations. The most frequently affected sites were the face, arms and legs. In two patients, an underlying psychological precipitant for DA was not identified (these patients had a pecuniary gain for their DA), and their lesions resolved spontaneously. The remaining 26 had some form of psychological stressors present in their lives. A summary of the clinical presentation and outcomes of patients is given in . Of the 28 case notes reviewed 20 (72%) patients had resolution/great improvement of their condition, six (21%) remain under follow-up with stable/intermittent lesions and two patients failed to attend follow-up appointments (7%). It is worth noting that even the two patients with a secondary gain for developing DA (both worked in the healthcare sector, and wished either for compensation for work-related stress, or time off from work for work-related stress), had clear symptoms of anxiety and/or depression and were treated accordingly.

Table 1. Clinical presentation and outcomes of dermatitis artefacta (DA)

Sex/age (years)/marital status	Life event/psychosocial precipitant	Type of cutaneous lesion	MDT	Treatment/outcome
F/13/single	Staying with relatives during summer holidays. Sexual abuse carefully excluded	Linear tears – face, trunk, legs	D, P, CP, CPS, SW	Recovered after 4 years. Prescribed OCP. Ongoing CBT
F/13/single	Has ADHD, mother has RA, and brother has Asperger syndrome	Superficial erosions – arms, face, legs	D, P, CP	Declined medication. Under care of child and adolescent psychiatry for ADHD
F/14/single	6 months prior to onset, family fostered two foster brothers	Superficial erosions/blisters – face	D, P, Ps	Sexual abuse considered likely and so referred to child protection services. Resolved after effective

				referral
F/14/single	Bullied at school	Superficial burns/postinflammatory hyperpigmentation neck	D, P, Ps	Resolved within a year of presentation after counselling
F/14/single	Family dysfunction. Recurrent epistaxis, unexplained falls. No organic cause found	Linear tears – hands and legs	D, P, Ps	6 months clear, recurred briefly, now having yearly follow-up and clear 4 years
F/14/single	Bullied at school, absent mother	Linear excoriations – forearms, face	D, P, Ps	Child and family had counselling for 6 months. No recurrence to date
F/15/single	Stress of exams	Annular petechiae – chin (suction artefact)	D, P, Ps	Resolved – after two appointments within a year of presentation. No recurrence
F/15/single	Stress of exams	Blister – palm (cryoburn from deodorant bottle)	D, P, Ps	Resolved – after two appointments within a year of presentation. No recurrence
F/18/single	Stress of exams/dyslexia	Excoriations – all over torso	D, P	Resolved after four appointments within a year of presentation. No recurrence
F/24/single	Work-related stress. Depressed.	Linear excoriations face. Secondary gain for developing DA	D, P	Resolved with citalopram 20 mg/minocycline ongoing. Counselling from D and P in clinic
M/27/single	Unknown	Ulcers – scrotum	D, P, Ps	Biopsied and spontaneous resolution within 3 months of presentation. No recurrence to date
F/29/separated	Suicide of father, three small children, alcoholic husband, depression	Abscesses – arm, chest, back and buttocks	D, P, Ps	Multiple biopsies prior to diagnosis. Lesions resolved after 3 years of review, SSRIs and psychotherapy. No recurrence to date
F/36/single	Anxiety	Excoriations – face. Secondary gain for developing DA	D, P, Ps	Treated with SSRIs and CBT. Resolved for 3 years. Then lost to follow-up
F/38/lives with partner	Back problems	Superficial erosions – arms and legs	D, P, DNS	Biopsied. Topical steroids and emollients. SSRIs. Resolved within 1 year of presentation
F/40/single	Schizophrenia. Had been lost to local psychiatric team and was socially isolated	Blisters on leg	D, P	Skin improved with occlusion of blisters. Biopsied. Referred to local psychiatric team for day treatment. Lesions resolved within 3 years of presentation
F/41/separated	Strict father, single mother, anxiety and depression	Excoriations – face	D, P	Stable – isotretinoin. CBT, self-help books, internet. Under review after 3 years

F/41/married	Chronic pancreatitis	Recurrent erosions on body. Organic cause excluded	D, P, Psych N	Improved after 2 years with CBT. Has not recurred to date
F/44/single	Educational special needs. Abusive relationship with house-mate	Excoriations face and body	D, P, Ps	Ongoing – 18 months after presentation. Commenced on tricyclics and other antidepressants. Referred to vulnerable adult mental health team but referral delayed
F/48/single	Psychosocial stress at home with partner	Excoriation – shoulder and back	D, P, Ps	Improved with UVB, failed to attend 9 month review, untraced thereafter
M/53/single	Bereaved – lived with mother until her death. Stress at work	Superficial erosion – leg	D, P, Ps	New job. Lesions improved on review after 6 months. Topical mupirocin also given. Bereavement counselling started and lesions resolved
F/53/married	History of IV drug use	Excoriation – cheek	D, P, Ps	Biopsied. Still present after 4 years
M/53/single	Depression, trigeminal neuralgia	Linear excoriations face	D, Ps, P	Pregabalin, Kaltostat® (ConvaTec, Uxbridge, U.K.) dressings, topical lignocaine. Improved and has not recurred 2 years after presentation
F/54/single	Stress and depression. Sole carer for mother with Alzheimer disease. Noisy neighbours	Linear tears – hands	D, P, Ps	Stable in between appointments. Patch testing (−), SSRIs. Rehoused. Problem resolved and has not recurred after 3 years
F/59/single	Depression	Excoriations – face, arms, legs	D, P, Ps	Improved with PUVA still under review after 2 years
M/63/single	Stress with work	Excoriations – scalp	D, P, DNS	Biopsied. Resolved with steroid scalp application and review 9 months after presentation
F/65/married	Multiple somatization health-related problems. Abusive partner	Nonhealing ulcer right breast	D, P, DNS	Improving – with SSRI/dressings 2 years after presentation
F/67/divorced	In social care as a child. Depressed, alcoholism, CVA	Eroded ulceration – face	D, P, NP	Treated with SSRIs and referred to substance abuse team. Ongoing problems with alcohol under review 3 years after presentation
F/70/single	Depression after loss of husband. Was anxious about MRSA which was cause of husband's death	Nonhealing ulcer face	D, P	Treated with olanzapine. Lesions healed and not recurred to date, 1 year after presentation

ADHD, attention deficit and hyperactivity disorder; CAP, child and adolescent psychiatrist; CBT, cognitive behavioural therapy; CP, child psychologist; CPS, child protection services; CVA, cerebrovascular

accident; D, dermatologist; DNS, dermatology nurse specialist; IV, intravenous; MDT, multidisciplinary team; MRSA, meticillin-resistant *Staphylococcus aureus;* NP, neuropsychologist; OCP, oral contraceptive pill; P, psychiatrist; Ps, psychologist; psych N, psychiatric nurse; PUVA, psoralen and ultraviolet A phototherapy; RA, rheumatoid arthritis; SSRI, selective serotonin reuptake inhibitors; SW, social workers.

Nine of our cases (32%) were children (aged < 16 years). This is important as we hold a dedicated psychodermatology clinic that has access to child and adolescent psychiatrists, child psychologists and child protection services, and the child and adolescent mental health studies specialists assess and treat younger patients with a dermatologist and an adult psychiatrist concurrently. We are mindful of sexual and other abuses in all our patients, and were particularly concerned about two children, referring one of those children to the child protection services. We carefully excluded sexual and physical abuse in all other children.

Concomitant or family physical disease is a common association of DA in our series. A total of 10 (36%) patients (one child and nine adults) had concomitant physical disease or a close member of the family with physical disease. This is important as we believe DA will often either mimic or be a comorbidity of chronic organic disease. Thirteen patients (46%) had a diagnosed mental health disease either at presentation with DA, or (one adult with schizophrenia and one child with attention deficit hyperactivity disorder) as potentially part of their clinical disease. Eleven patients (39%) were identified with concomitant affective disease (anxiety, depression and bereavement). One patient had a history of a psychotic disease (schizophrenia). Although this patient was socially isolated, and had been lost to follow-up from her local psychiatric services, she was in remission from her schizophrenia. One patient (also thought to be depressed) had ongoing alcohol dependency, one patient had a history of intravenous drug abuse and one patient had a husband with alcoholism.

All patients were treated by the psychodermatology multidisciplinary team. This involved an initial assessment with a dermatologist and psychiatrist seeing the patient concurrently. A referral was made if necessary to other psychiatric or psychological services. Our clinical psychology service runs in parallel within the psychodermatology clinic, so that although clinical psychologists are not always present at specific consultations (sometimes they are), immediate access to a psychology opinion is available (as is immediate access to a dermatology or psychiatry opinion for our psychologists). The multidisciplinary psychocutaneous medicine team may also include liaison with child psychologists and psychiatrists, dermatology nurse specialists, neuropsychologists, psychiatric nurses and social workers. Figure 1 illustrates how the process of management operates once the patient is referred to our service.

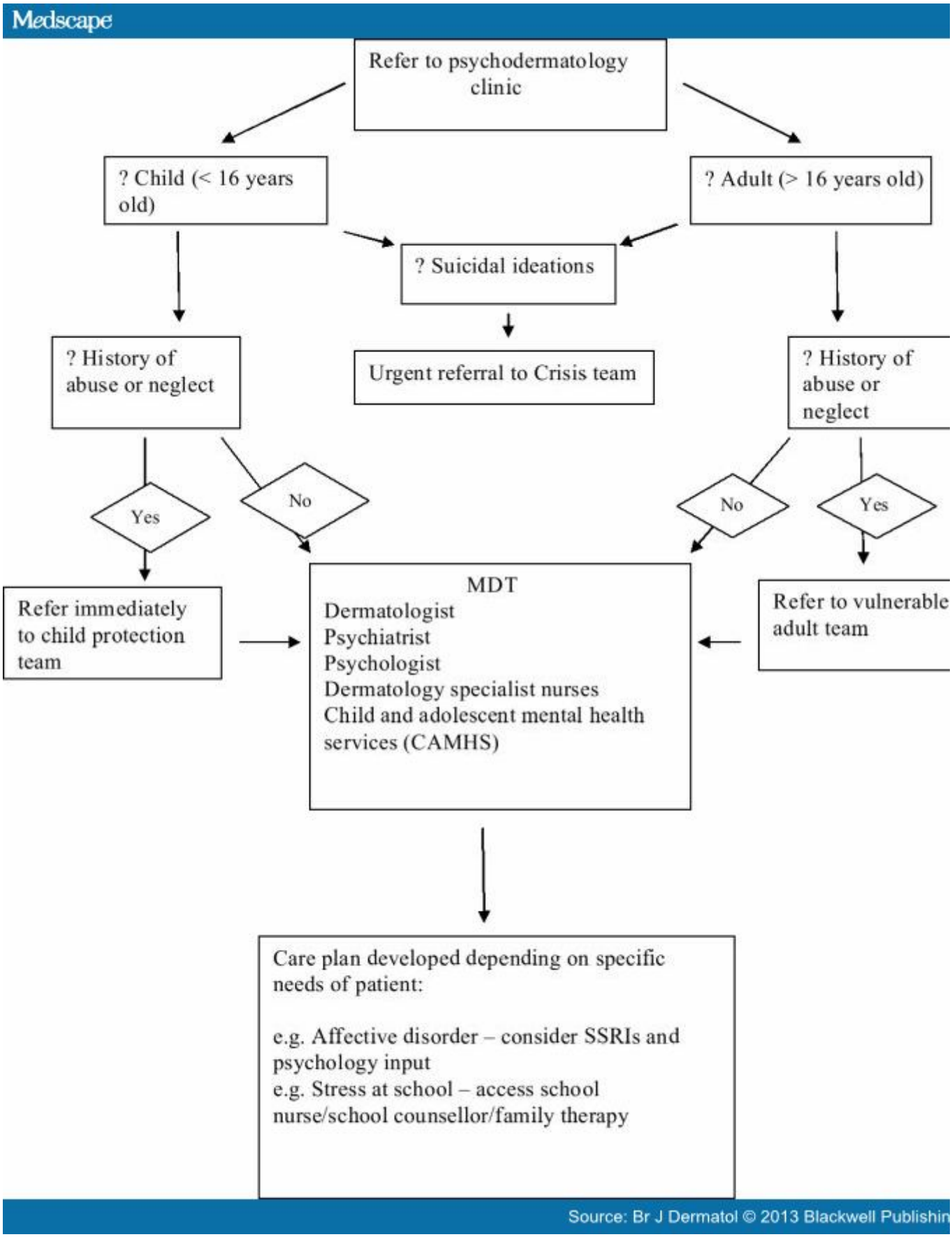
Medscape
Refer to psychodermatology clinic
? Child (< 16 years old)
? Adult (> 16 years old)
? Suicidal ideations
? History of abuse or neglect
Urgent referral to Crisis team
? History of abuse or neglect
Yes
No
No
Yes
Refer immediately to child protection team
MDT
Dermatologist
Psychiatrist
Psychologist
Dermatology specialist nurses
Child and adolescent mental health services (CAMHS)
Refer to vulnerable adult team
Care plan developed depending on specific needs of patient:
e.g. Affective disorder – consider SSRIs and psychology input
e.g. Stress at school – access school nurse/school counsellor/family therapy
Source: Br J Dermatol © 2013 Blackwell Publishin

Figure 1.

Algorithm for managing patients with dermatitis artefacta. MDT, multidisciplinary team; SSRI, selective serotonin reuptake inhibitor.

Discussion

Patients with DA present with a variety of skin lesions, and the vast majority have an underlying psychological illness or stress as triggers for their skin complaint. In common with other reported case series,[1, 4] the majority of patients with DA in this study were female (86%). Also, most adult patients were either single or divorced, or were in unhappy relationships. Thus a degree of social isolation and psychosocial disorder may have contributed to their condition. No follow-up data, despite repeated invitations and follow-up telephone calls, were available in two patients, which is indicative of the difficulties faced by clinicians to diagnose, engage and manage effectively all patients with DA.

Dermatitis artefacta is more common in adolescence and early adulthood, although all age groups may be affected.[5] It can also manifest as an emotional safety valve in vulnerable patients. Among children in this study, the common stress factors were noted to be upcoming examinations, bullying and discord at home. Psychosocial stressors can usually be identified as a trigger in most cases and it is essential for the clinician to explore why the patient is presenting with DA, rather than how they are creating their skin lesions. Sometimes, it is possible for clinicians to elicit a history of physical or sexual abuse in some patients, especially if the DA lesions involve the genital skin and/or breasts. Some patients have also experienced loss of family and loved ones in early life.[6] The onset of DA frequently coincides with a precipitating life event which varies according to the age of the patient.[7] The Koblenzer classification[8] of artefactual skin lesions can be used as a broad framework to diagnose DA.

While formulating a management plan for DA, a nonconfrontational approach is usually advocated. Focusing on the 'surface' symptoms is of less therapeutic importance than understanding the 'core' issue. Although it is primarily a dermatological diagnosis, management should involve close cooperation with specialists in mental health. The emphasis is on developing a strong physician–patient–family relationship in order to achieve a successful outcome. There are two important goals to try and achieve while managing these patients.[9] Firstly, attempts should be made to adhere to appointment schedules and limit investigations to a minimum. Secondly, it must be recognized that patients are in a way calling for help by self-inflicting these skin lesions. Therefore it is imperative that a safe and accepting environment is created during the consultation. One way of addressing their problems would be to avoid any reference to the physical mechanisms causing the lesions, and instead focus on the 'stress' as the probable mediator, which may be easier for the patient to accept. Conversely, it may be useful to address the fact that the illness itself is causing the stress and to use this rationale for the introduction of psychotherapy or a psychiatric consultation.

Even so, treatment of the skin as well as the psychological aspects of DA is important. General measures such as baths, emollients and topical antibacterials can all be used depending on the presenting lesions. It is useful to prescribe these as it gives the patient some gratification that 'something is being done' and may also replace the destructive manoeuvres causing the lesions in the first place. Occlusion has been used in the past as a diagnostic and therapeutic tool.[10] However, unless the patient feels secure and cared for they may well transfer their activities to another area of the skin.[11]

Treatment of the emotional components of DA includes both psychological and psychopharmacological approaches. Cognitive behavioural therapy and psychotherapy have had varying degrees of success. Patients who present to the dermatologist are often unwilling to accept the psychiatric nature of the disorder and lack the awareness of the circumstances that trigger the drive to produce the lesions, which is why we believe a combined dermatological and psychiatric approach is better. It is fairly well recognized that serotonin pathways are involved in self-injurious behaviour. Serotonin pathways are implicated in

obsessive-compulsive disorders, anxiety disorders and depression.[12] Therefore, selective serotonin reuptake inhibitors (SSRIs) can be used where there is an obsessive-compulsive element to the self-injury in DA, and also to treat any depressive or anxiety disorder which may be present. It is also suggested[13] that there may be a role for low-dose antipsychotics, which we have used with positive results. Another possibility would be the use of carbamazepine, which has been used in self-injurious behaviour, for example in those patients with learning difficulties. However, there is no literature of its use in DA. The overall use of psychotropics needs to be considered on a case by case basis.

The prognosis of this condition is not certain, mainly because of an absence of long-term follow-up data in these patients. In a longitudinal study of 43 patients by Sneddon and Sneddon[14] it was observed that a change in life circumstances rather than medical treatment *per se* helped to alleviate the condition. In our cohort of patients, a varying number of management techniques were used with some success, ranging from the oral contraceptive pill to ultraviolet B radiation, alongside the more conventional treatment options such as SSRIs and counselling. Suicide and attempted suicide was not an issue in our case series, although this has been reported. Suicidal ideation may be more of a risk in patients where self-injury occurs or in a psychotic patient motivated by delusional beliefs.[15] Children also seem to have a better prognosis as growing up helps them to deal with their own problems.[16]

All our patients were treated by the psychodermatology multidisciplinary team. This involved an initial assessment with a dermatologist and psychiatrist seeing the patient concurrently. Psychological comorbidities are common, being identified in about 30% of all dermatology patients.[10] Offering a service that addresses the psychological and social needs of the patients' problems has led to improved outcomes in our patients compared with other studies ().

Table 2. Previous case report series and outcomes

Study	Summary of study	Outcomes
Saez-de-Ocariz *et al*.[17]	Retrospective study of 29 records of paediatric patients with DA spanning 20 years. The study looked at demographics, clinical presentation, psychiatric features and treatment of these children	21 referred for psychiatric evaluation, seven refused. Out of the 14 seen, 10 attended follow-up, four cured (40%), three improved (30%), three worsened (30%); < 50% attended for their second follow-up appointments overall
Rogers *et al*.[1]	Retrospective case study of 32 children over a 15-year period. The authors examined the clinical features of the condition and discussed management options emphasizing a multidisciplinary approach	Eight out of 12 cases seen in the psychodermatology clinic improved (66%), four refused further consultation after diagnosis of ASD made (33%). There is no recorded outcome for the remaining 20 cases due to incomplete/unavailable data
Obasi and Naguib[18]	Retrospective study of 14 patients with DA over a 5-year period. This study looked at diagnosis and modes of management in both adults and children	Five patients received some form of psychiatric therapy (35%), six did not attend follow-up appointments/self-discharged from hospital (42%), one patient was cured with occlusive therapy (7%), two no treatment details available (14%)
Fabisch[4]	A retrospective study looking at 50 adults and children over 17 years. Clinical features and therapeutic measures were discussed	All 50 had psychiatric input and 26 (52%) were seen by a psychologist. The study focused on the psychological aspects of DA and did not mention benefits of a multidisciplinary approach
Sneddon and Sneddon[14]	A study of 43 adults and children spanning 22 years. Physical and psychological features of the condition were noted	33 patients were traced (76%), 20 (46% of total) of these had recovered, 10 (23% of total) who were untraced were assumed to be well, 13 (30% of total) continued to have symptoms. Recovery seemed to be dependent on the patients' life circumstances

ASD, artefactual skin disease; DA, dermatitis artefacta.

In conclusion, DA is an uncommon, self-inflicted skin condition. Although the diagnosis may be suspected during the initial consultation, it may take a period of time before this is firmly established. Extensive investigations for the skin lesions are generally not recommended because undue attention to the physical symptoms may encourage the behaviour. However, careful exclusion of organic dermatological disease is mandatory. The course and prognosis of the condition varies considerably and is most likely related to the nature of the underlying psychiatric or psychosocial problem. Events preceding or precipitating the onset of DA can usually be elicited from a detailed history. This series of patients emphasizes the importance of combined psychiatric and dermatological assessment. A psychological formulation has to be reached on a case by case basis and a management plan based on this. It is frequently noted that these patients will often refuse psychiatric referral. Our experience of assessing them in a joint psychodermatology clinic is that the psychiatric evaluation can proceed gradually over time as a rapport is established between the patient and both the dermatologist and psychiatrist. The patient's problems are thereby viewed holistically from the outset. The paucity of long-term follow-up data makes it difficult to establish the prognosis of this condition. DA is a primarily a dermatological diagnosis but management is best undertaken in close cooperation with mental health professionals with emphasis on developing an empathic, nonjudgmental and supportive approach with these vulnerable groups of patients. Further research into the socioeconomic burden of this illness needs to be carried out to assess the impact on social and health services. We believe that a multidisciplinary team approach to these patients is essential in their management. Being seen by a dermatologist or psychiatrist or psychologist in isolation is not likely to resolve the DA. Once a multidisciplinary team approach has been adopted (with an integrated multidisciplinary team service) then, in our experience, the outcome is better.

Sidebar

What's Already Known About This Topic?

- Dermatitis artefacta is a difficult condition to diagnose and treat effectively.
- Management usually consists of seeing the patient in either a dermatology or psychiatry setting with variable results.

What Does This Study Add?

- Seeing patients in a combined psychodermatology clinic with access to a multidisciplinary team has improved outcomes and we are the first to describe this approach in the U.K.

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