Body Dysmorphic Disorder in a Hairdresser: Contact Dermatitis due to Voluntary Exposure to Occupationally Relevant Allergens

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Sir,

Body dysmorphic disorder (BDD) is primarily a psychiatric condition, but frequently found in dermatological settings, where it often goes undetected (1). BDD is characterized by subjective beliefs of physical ugliness or disfigurement despite an objectively normal appearance. Often minor blemishes are blown out of proportion. The affected individual is convinced that others perceive them as disfigured and deformed. BDD is associated with substantial suffering, suicide attempts and reduced quality of life (2). While this under-studied disorder is now being increasingly researched (3), an excessive preoccupation with skin-associated features such as hair has received little attention thus far. We report here the case of a 20-year-old hairdresser who had become extremely dissatisfied with her hair. Although being aware of having type IV sensitizations to para-phenylenediamine, para-toluenediamine, para-aminophenol and 3-aminophenol she displayed an extreme willingness to accept contact dermatitis due to regular exposure to allergen-containing hair dye.

CASE REPORT

A 20-year-old woman had had atopic dermatitis (AD) in childhood, but was symptom-free when starting her hairdressing apprenticeship in 2003. The patient lived at home with her parents and one brother and had a boyfriend who she did not live with. In the second year of her training she developed hand dermatitis. A dermatologist diagnosed type IV allergy to para-phenylenediamine. She was treated with topical corticosteroids and recommended to use skincare products. After diagnosis she used alternative hair dye products where possible; however, she otherwise continued as usual in her profession. She reported regular use of protective gloves when washing and dyeing hair. Due to persistent contact dermatitis she attended a 3-week tertiary prevention measure for treatment of occupational dermatoses in October 2007 (4), consisting of dermatological treatment, allergy testing and intensive educational programmes about occupational skin diseases and their prevention. She was diagnosed with allergic contact dermatitis on the hands, ears, scalp, neck and forehead (Fig. 1). The type IV sensitization found previously was confirmed, and additional type IV sensitizations to para-toluenediamine, para-aminophenol and 3-aminophenol were found. All these substances can be found in hair dye products. During her 3-week in-patient treatment an excessive preoccupation with her hair became apparent. She was consequently seen by the department's psychologist for further assessment. She described her problems as stemming from her hair, which she found extremely repulsive and ugly. She also described her self-esteem as very low. Dyeing her hair which she begun doing at the age of 15, improved her self-esteem. She continued using hair dyes, thereby exacerbating her hand dermatitis and inducing contact dermatitis on her head, even after becoming aware of the contact allergies. When asked what it would be like if she did not dye her hair she was close to tears and said she would be worthless and extremely unattractive. She returned to work 2 months later, in December 2007. Contact dermatitis of the hands reoccurred within 2 weeks despite intensified skin protective measures. She continued working as a hairdresser, but became unemployed after a further 2 months, in February 2008. Her hand dermatitis improved quickly. At follow-up 7 months later the contact dermatitis of the hands and head had resolved. She is currently unemployed, but preparing for new training as an office worker and has decided to stop dyeing her hair with allergen-containing products. Nevertheless, she continues changing her hair colour by bleaching it. When asked what she would do if bleaching was no longer possible she replied she did not want to think about it, as "the world would come down if she became unable to change the appearance of her hair, since it is so hideous", and her quality of life would suffer severely.

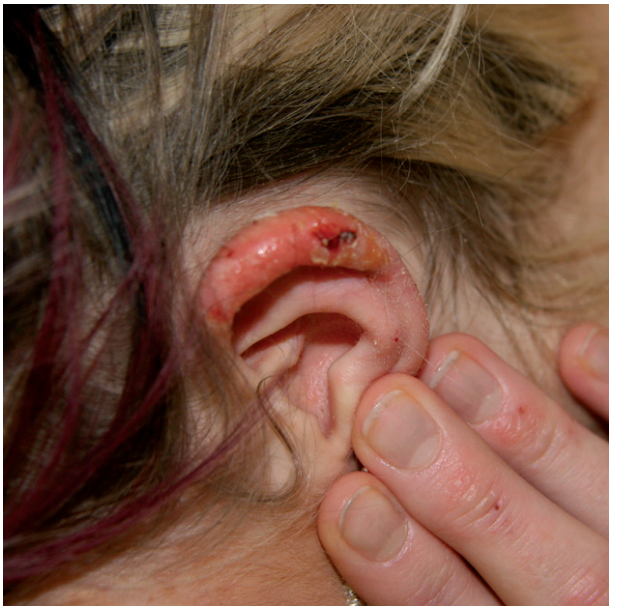

Fig. 1. Allergic contact dermatitis of the ear due to voluntary use of allergen-containing hair dye.

During inpatient treatment and subsequent appointments diagnoses of depression and anxiety were ruled out. Using a body image screening instrument (5), the Structured Clinical Interview for DSM-IV Disorders (6), and a modified version of Yale-Brown Obsessive Compulsive Scale for BDD (7), we arrived at a diagnosis of BDD. We recommended that she underwent psychotherapy for treatment of BDD.

DISCUSSION

We describe here a patient with contact dermatitis caused by contact allergens found in hair dye products, who was

excessively concerned with the colour and appearance of her hair. She described her hair as disgusting and felt unable to accept its colour and structure. By the application of allergen-containing hair dye, and later bleach, she successfully, but only temporarily, manages to come to terms with these subjective debilitating circumstances. Changing the colour of her hair provides a façade which makes her feel better about herself. If she were not able to succeed in changing this perceived blemish, major social, occupational and other impairments would, in her view, ensue. A potential inability to change the colour of her hair would be a "catastrophe".

The onset of BDD usually occurs during adolescence or early adulthood (8). Our patient reported that her excessive preoccupation with her hair began during puberty. Before being able to conceal her natural hair under a "protective" layer of dye, she felt inadequate and had low self-esteem. She began dyeing her hair at the age of 15 years and continued even when contact dermatitis, caused by clinically and occupationally relevant contact allergens in hair dye, had occurred, because she realized that she had found a way to change the part of her physical appearance, namely her hair, which she disliked.

BDD often coincides with depression (9). Strong correlations with depressive cognitions suggest that dysmorphic concern is often a reflection of a depressive cognitive set rather than being a diagnosis in itself (10). We did, however, screen for symptoms of depression and anxiety, and found no indication for these disorders. Although BDD is almost never found without comorbidity it does appear to be an autonomous syndrome (11).

BDD occurs in approximately 0.7–2.4% of the general population (2, 12). BDD is almost equally common in men and women, with a slight preponderance in women (2). The disorder appears more common in dermatological (13) and cosmetic surgery settings (14). Dermatologists may, in fact, be one of the medical professions most often consulted by patients with BDD (8). Individuals with BDD often undergo cosmetic surgery to achieve the desired outcome; however, they often feel dissatisfied with the results and may sometimes continue with even more hazardous treatment (15). Our patient started dyeing her hair at the age of 15 years. Despite learning about contact dermatitis due to the hair dye she used, she continued using it, developing contact dermatitis on the head, face and hands as a result. When forced to give up her profession she also stopped using allergy-containing hair dye, but changed to bleaching her hair. Although she is presently able to control the perceived flaw by bleaching her hair, long-term damage is likely. The actual problems causing her feelings of inadequacy and low self-esteem need to be ascertained and addressed psychotherapeutically. She knows that the behaviour necessary to change the colour of her hair is not under her volitional control, which is why we strongly recommended her to undergo psychotherapy.

Dermatologists need to be aware of the frequency and multitude of manifestations of BDD in dermatological settings in order to facilitate recognition and subsequent referral. Though speculative, since uncorroborated by data, hairdressers may pose a particular problem, since while very appearance-oriented they are at high risk of developing type IV allergies due to exposure to allergy-containing substances. For a diagnosis of BDD the following criteria need to be met: excessive preoccupation with an imagined flaw, which is associated with substantial suffering and social, occupational or other impairment, while other psychiatric conditions can be ruled out.

The authors declare no conflict of interest.

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