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Self-induced discoloration of the face with red exogenous pigment detected by dermoscopy: a novel type of dermatitis artefacta in the COVID-19 era

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Dear Editor,

Dermatitis artefacta (DA) is a condition on the border of psychiatry and dermatology, characterized by patients intentionally causing skin lesions to pretend that they are ill. DA is a very challenging entity to diagnose, as it can mimic many other disorders and is usually recognized only after exclusion of all other diseases.[1] Herein, we report three cases of a novel cutaneous condition that could fall into the spectrum of DA.

The first patient, a 15-year-old adolescent, presented with recurrent erythematous facial lesions for a couple of months. The patient had consulted the emergency department because of the acute appearance of the lesions, but blood investigations were normal. The patient was otherwise healthy, except for a concurrent fever with the cutaneous eruption. Lesions had spontaneously resolved after each episode. At clinical examination, erythema was diffusely seen on the face, sparing the central area (Figure 1A). The patient reported intense pain at palpation. Dermoscopy revealed widespread reddish dots (Figure 1D), which were not compatible with vessels, but likely to be exogenous red pigment.

The second patient, an 8-year-old girl, was urgently referred for a second episode of acute facial redness. She was in good health, and after a few visits to the emergency department, her blood tests were normal. Physical examination revealed an intense erythema of the right side of the face (Figure 1B), whose dermoscopy overlapped case 1 (Figure 1E).

The third case, a 15-year-old girl, consulted us for a 4-month history of recurrent sudden reddish discoloration of eyelids. She was previously referred to the emergency department and was hospitalized in the pediatric inpatient clinic with the suspicion of dermatomyositis, then excluded for normal blood investigations. At our visit, she had no lesions (Figure 1C), but dermoscopic examination allowed us to see, in correspondence with the lower left eyelid, reddish dots, as the remnants of previous exogenous pigment (Figure 1F).

Based on history, clinical, and mostly dermoscopic findings, a diagnosis of self-induced discoloration of the face with red exogenous pigment was made. Apart from the dermoscopic appearance showing clear-cut red exogenous pigment, the unequivocal demonstration of DA was obtained with alcohol, which was successfully used to remove pigment in all cases (Figure 2 A,B). The findings were then clearly presented to the patients and their parents. Another ‘proof’ was one patient’s inner aspect of the face mask, showing residual red pigment (Figure 2C).

Diagnosis left the parents incredulous, although the evidence. On the other hand, patients’ reactions were different. The adolescents objected to the use of alcohol for pigment removal, citing pain. Patient 2 soon confessed after diagnosis and declared to have repeatedly used a fluorescent highlighter to

produce her ‘disease’. The culprit remains unknown for patients 1 and 3. Psychiatric support was strongly advised for the three patients.

Although presenting with apparently different clinical manifestations, the three girls had several features in common: recurrent episodes of facial erythema, good general health, no other symptoms (fever was simulated in patient 1), normal blood investigations, and the dermoscopic finding that permitted the diagnosis. Another very important anamnestic information is that all these patients were seen soon after the COVID-19 lockdown restrictions, which could have noticeably impacted their psychiatric stability.

To the best of our knowledge, this is the first description of self-induced pigmentation of the skin, and we can speculate that it can be considered a novel, previously undescribed variant of DA. A recent large review classified pediatric pathomimia.[2,3]

As our patients simulated true cutaneous diseases such as rosacea, lupus, dermatomyositis, psoriasis, eczema, fifth disease, and others, the diagnosis could be challenging, and dermoscopy played a central role in detecting the guilty habit.

Unfortunately, the COVID pandemic has significantly impacted our lives,[4] introduced new dermatologic signs,[5,6] caused bizarre vaccine reactions,[7,8] and indirectly affected people’s psychiatric stability, especially adolescents who seek attention through extreme acts like disease simulation. We should be aware of this novel condition in order to avoid diagnostic delay, promptly manage the psychiatric morbidity of our young patients, but contextually be delicate in the diagnosis and avoid the so-called ‘empathic failure’.

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Figure 1. A) 15-year-old girl with recurrent erythema of the face; B) unilateral facial erythema in an 8-year-old girl; C) apparent absence of erythema on the left lower eyelid in a 15-year-old girl with a recurrent history of erythema of eyelids. D, E, F) Dermatoscopy showed regularly distributed red dots due to red exogenous pigment on the skin.

Figure 2. A) Face of patient 2 after alcohol removal of pigment; B) red pigment on gauzes; C) red pigment remnants on face mask worn by patient 1.