Dermatitis Artefacta Presenting as Dermatomyositis: A Diagnostic Conundrum

Annie Raizada, Maitreyee Panda, Nibedita Dixit, Trashita Hassanandani

Department of DVL, IMS and SUM Hospital, Siksha O Anusandhan University, Bhubaneswar, Odisha, India

Sir,

A 25-year-old female presented to dermatology services with dusky red colored rash affecting both the upper and lower eyelids along with reddish rash on upper chest as well [Figure 1]. There were purplish erythematous macules on the skin overlying the distal and proximal interphalangeal joints of the fingers and the metacarpophalangeal joints of the bilateral dorsum of hands [Figure 2] for 1 month. She also complained of difficulty in combing her hair, getting up from sitting position, weakness, easy fatigability, breathlessness, difficulty in clearing food from her throat and loss of hair. She also reported recent weight loss of about 5 kg. The patient however exhibited normal muscle strength on manual muscle testing and power of grade 5 at proximal and distal muscles of upper and lower limbs. The tone was normal; all deep tendon reflexes were present. The sensory system was within normal limits. There was no eyelid or periorbital edema, no fever, and no history of photosensitivity. The dilemma about diagnosis started when all her routine laboratory parameters were within the normal range. Serum Lactate dehydrogenase (LDH) level was 250 U/L (normal 240–480 U/L) and serum Creatinine phosphokinase-myocardial band (CPK-MB) level was 20 U/L (normal <24 U/L), both were within normal range. Antinuclear antibody (ANA) titer and ANA profile were negative and the autoantibody profile failed to show a rise of any antibodies. The interpretation of skin punch biopsy on histology was normal. Skin magnetic resonance imaging of proximal muscles, lung function test, and high-resolution computed tomography of the chest revealed no abnormality.

We further tried to take a thorough history of her background. She was married at the age of 22 years and holds a Bachelor of Science (B.Sc) degree. Recently, she got an offer from a pharmaceutical company for the post of sales representative but was denied permission from her in-laws to

Figure 1: Dusky red colored rash affecting both the upper and lower eyelids and upper chest

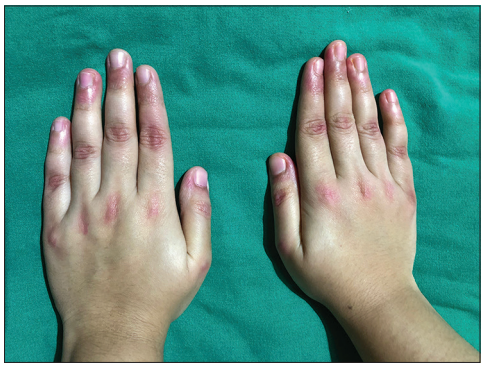

Figure 2: Purplish erythematous macules on the skin overlying the distal and proximal interphalangeal joints of the fingers and the metacarpophalangeal joints

How to cite this article: Raizada A, Panda M, Dixit N, Hassanandani T. Dermatitis artefacta presenting as dermatomyositis: A diagnostic conundrum. Indian Dermatol Online J 2020;4:629-31.

Received: 05-Dec-2019. **Revised:** 17-Dec-2019. **Accepted:** 26-Feb-2020. **Published:** 13-Jul-2020.

Address for correspondence:
Dr. Nibedita Dixit, Department of Dermatology, Venereology and Leprosy, IMS and SUM Hospital, Kalinga Nagar, Bhubaneswar - 751 003, Odisha, India.
E-mail: buntinibs@gmail.com

Access this article online

Website: www.idoj.in

DOI: 10.4103/idoj.IDOJ_594_19

Quick Response Code:

pursue the job. She appeared sad and depressed. Further questioning revealed interpersonal conflict with her mother-in-law and she was also receiving less attention from her husband because of his busy work schedule. With psychiatric referral and assessment, a familial discordance was established and she later admitted of self-infliction of lesions to draw her husband's attention. The patient was diagnosed with depression and was started with selective serotonin reuptake inhibitors and behavioral therapy.

As a simple bedside maneuver, we used normal saline dipped gauze and applied on the periorbital region and the knuckles. The dusky red rash on upper and lower lids, lilac erythematous rash on the upper chest [Figure 3], and violaceous lesions on the interphalangeal and metacarpophalangeal joints [Figure 4] completely disappeared and the resultant skin was completely normal looking without any lesions. The patient had used various shades of lipstick to produce these lesions. A final diagnosis of dermatitis artefacta presenting as dermatomyositis was made after a thorough clinical assessment of the patient.

Dermatomyositis is an autoimmune disorder involving skin and skeletal muscles predominantly and is characterized by classic cutaneous findings, progressive muscle weakness, elevated muscle enzymes, abnormal muscle biopsy, and abnormal electrogram. It is approximately twice more common in women with variable prognostic outcome[1] and mortality ranging from 4% to 45% of the patients.[1]

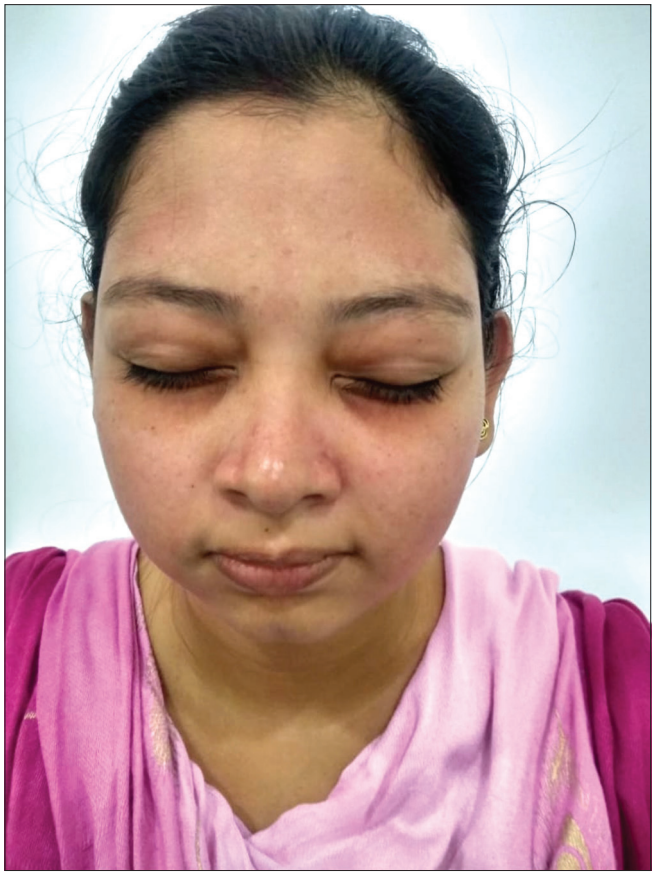

Figure 3: Complete disappearance of rash after cleaning with saline soaked gauze

Dermatitis artefacta is a form of the factitious psychocutaneous condition, which is encountered more by a dermatologist than a psychiatrist,[2] with a prevalence of about 0.3% among dermatology patients[3] and is a disease of exclusion.[4] There are deliberate actions by the patient to satisfy psychological, deep-seated interpsychiatric, or emotional needs or can be a cry for help mechanism when emotional stress exceeds the patient's suffering.[2] A common finding is a denial of self-infliction of injury or lesions. Women are more commonly affected with male to female ratio of 1:4 and variable age of onset (9–73 years) with most cases occurring during adolescence and young adulthood.[3] Precipitating factors of dermatitis artefacta can be delayed developmental milestones, sexual or substance abuse, loss of close relative in the recent past, marital dispute,[4] anxiety, personality disorders including obsessions, compulsions, attention-seeking behavior, depression, and psychotic disturbances.[3] Various modes of inflicting injury include abrasions with the use of mechanical methods, such as fingernails, glass pieces, knives, burning cigarettes, or chemical methods, like in our case. Diagnosis of dermatitis artefacta is a challenge to clinicians and clues to recognition may include bizarre lesions with well-defined borders and surrounding normal skin,[3] involvement of the approachable body parts like face and dorsum of hands (as in our case) more than the inaccessible body parts like midline of back, hesitancy and difficulty in making eye contact[4] and normal investigations which include blood test, histology and other laboratory parameters. Patients with dermatitis artefacta seek sympathetic understanding and nonjudgemental support and with mutual trust, rapport, and close understanding between patient and doctor. Behavioral therapy, antidepressants in the form of selective serotonin reuptake inhibitors along

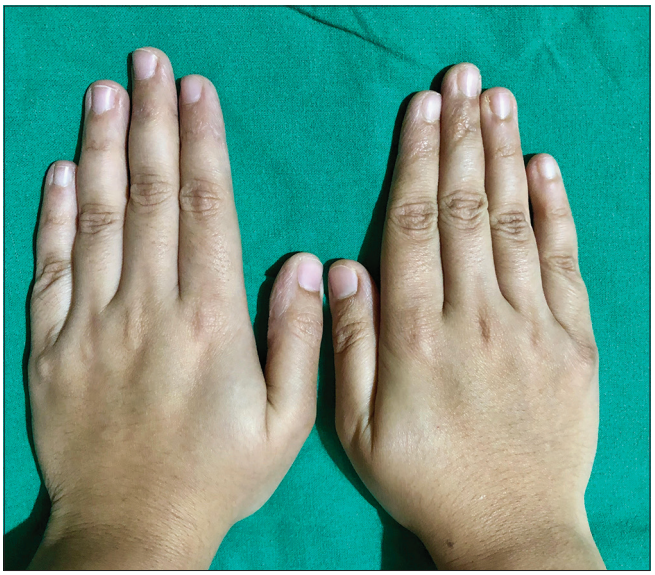

Figure 4: Lesions disappeared completely after cleaning with normal saline dipped gauze

with dermatological care with bland emollients, topical antibiotics and occlusive dressings, forms the mainstay of treatment. Further prognosis is uncertain and follow-up is necessary for such patients.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Bronner IM, van der Meulen MF, de Visser M, Kalmijn S, van Venrooij WJ, Voskuyl AE, *et al*. Long-term outcome in polymyositis and dermatomyositis. Ann Rheum Dis 2006;65:1456-1.
2. George AE, Sarojini PA. Dermatitis artefacta – A case of 'munchausen's syndrome by proxy'? Indian J Dermatol Venereol Leprol 1994;60:349-50.
3. Kumaresan M, Rai R, Raj A. Dermatitis artefacta. Indian Dermatol Online J 2012;3:141-3.
4. Saha A, Seth J, Gorai S, Bindal A. Dermatitis artefacta: A review of five cases: A diagnostic and therapeutic challenge. Indian J Dermatol 2015;60:613-5.