Psoriasis Presenting as Targetoid Lesions: First of Its Kind

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Abstract

Psoriasis is a common chronic inflammatory and proliferative condition of the skin and its presentation as targetoid lesions has not been described. A 29-year-old male came to the outpatient department with multiple red color elevated skin lesions over the forehead and trunk for the past 10 days. Multiple targetoid lesions of size 2 cm × 2 cm to 5 cm × 4 cm having central edematous crusted zone and the peripheral zone of erythema with irregular to well-defined margins present almost all over the body. Differential diagnosis included psoriasis, erythema multiforme, pemphigus erythematosus, and reiter's disease. The biopsy confirmed the diagnosis of psoriasis. The patient was started on injection methotrexate and responded well.

Keywords: Methotrexate, psoriasis, targetoid lesions

Introduction

Targetoid lesions also called as atypical targets have been described with disorders such as erythema multiforme (EM), Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN), ecthyma gangrenosum, fixed drug eruption, vasculitis, erythema chronicum migrans, granuloma annulare, connective tissue diseases, and certain autoimmune blistering diseases.[1] There are diverse forms of psoriasis-like chronic plaque, pustular, guttate, sebopsoriasis, napkin, inverse, erythrodermic and atypical forms such as rupioid, elephantine, Blaschko linear, and segmental. We are hereby reporting a case where psoriasis clinically presented as targetoid lesions, which has not been described as yet.

Case Report

A 29-year-male, an electrician by occupation presented with multiple red colored elevated skin lesions over the forehead and trunk for 10 days. Initially, he started developing lesions over the chest associated with mild itching, which gradually increased in size and progressed to involve the forehead, back, and extremities. Later patient took multiple doses of steroid injections (dexamethasone) from some village practitioner, which led to an exacerbation of the lesions. There was no history of any other drug intake, fever, photosensitivity, oral ulcers, Raynaud's phenomenon, urticaria, joint pain, and extramarital sexual contact. The patient denied of having any blistering disorders in the past. The patient did not have any previous episodes of similar illness in the past. Family history was not found to be significant. Both oral and genital mucosa, palms and soles, scalp, and nails were normal.

On cutaneous examination, there were multiple targetoid lesions of size 2 cm × 2 cm to 5 cm × 4 cm having central edematous crusted zone and the peripheral zone of erythema with irregular to well-defined margins, present almost all over the body [Figure 1]. A punch biopsy was done from a skin lesion over the chest. Psoriasis, EM, pemphigus erythematosus, and reiter's disease were kept as the differential diagnoses. Histopathology features revealed hyperkeratosis, parakeratosis, neutrophilic collections, the formation of spongiotic pustules in the upper portion along with marked elongation of the rete ridges and upper dermis showed moderately intense perivascular inflammatory

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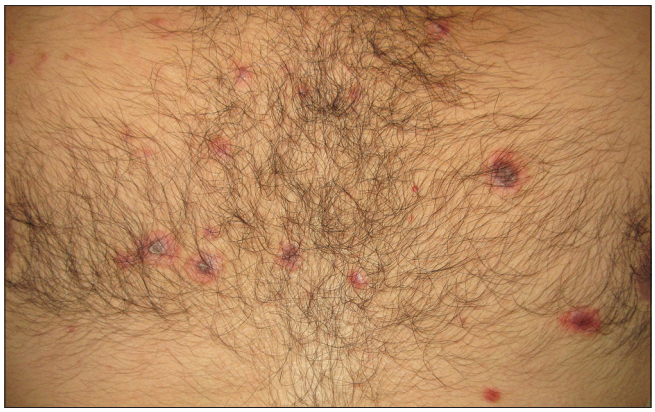

Figure 1: Multiple targetoid lesions of size 2 cm × 2 cm to 5 cm × 4 cm having central edematous crusted zone and the peripheral zone of erythema present over the chest

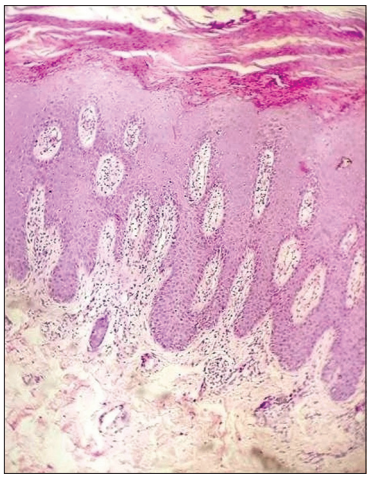

Figure 2: Photomicrographs showing hyperkeratosis, parakeratosis, loss of granular layer, acanthosis, neutrophilic collections with marked elongation of rete ridges. The upper dermis shows perivascular inflammatory infiltrate (H and E, ×10)

infiltrate; which were suggestive of psoriasis [Figure 2]. Classical changes of psoriasis include parakeratosis with focal orthokeratosis and accumulation of neutrophils in the stratum corneum, spongiform pustules in the Malphigian layer, elongation of rete ridges and suprapapillary epidermal thinning. Dilated, tortuous papillary blood vessels are surrounded by mixed mononuclear and neutrophil infiltrate as well as extravasated erythrocytes.[2]

Routine investigations such as complete blood count, liver function test, renal function test, lipid profile, fasting and postprandial blood sugar, urine examination (routine and microscopic), human immunodeficiency virus enzyme-linked immunosorbent assay test, hepatitis B antigen, anti-hepatitis C virus antibodies, thyroid function test, venereal disease research laboratory test, chest X-ray, electrocardiography were performed to rule out any systemic involvement and to plan further treatment. Antinuclear antibodies titer was found to be negative. The patient was found to be diabetic. All other investigations were normal. The patient was started on injection methotrexate 7.5 mg given intravenously once weekly. The patient was regular with follow-up and responded well.

Discussion

Targetoid lesions (also called as atypical targets) consist of two zones- central zone of erythema in the form of a papule, macule, or vesiculation; surrounded by a peripheral zone of erythema. Till today, targetoid lesions have been associated with EM, SJS, TEN, ecthyma gangrenosum, fixed-drug eruption, EM-like reactions, vasculitis, acute hemorrhagic edema of infancy, erythema chronicum migrans, granuloma annulare, pruritic urticarial papules and plaques of pregnancy, targetoid hemangioma, targetoid nevus, connective tissue diseases, and certain autoimmune blistering diseases.[1,3]

Psoriasis belongs to a group of chronic inflammatory and proliferative conditions of the skin. Most typical lesions consist of red, sharply demarcated, indurated plaques with silvery-white scales present particularly over extensor surfaces and the scalp. Morphological variants are common. There are various types of psoriasis-like chronic plaque, pustular, guttate, sebopsoriais, napkin, inverse, erythrodermic which had been described in the literature. Other atypical forms are rupioid, elephantine, Blaschko linear, and segmental psoriasis. Plaque psoriasis is the most common type of psoriasis, accounting for about 80%–90% of all cases.[2] However, the targetoid type of psoriasis had not been reported till now. Although, targetoid lesions which are a part of psoriasis secondary to administration of hydroxychloroquine had been described previously.[4] However, to the best of our knowledge, targetoid psoriasis which is idiopathic in nature has not been described previously. These targetoid lesions may be due to increased lymphocytic infiltrate at dermoepidermal junction, which could have led to such lesions in psoriasis. However, additional reports are needed to better characterize this type of psoriasis and to re-emphasize our observation. To conclude, treating dermatologists should have a high index of suspicion for psoriasis when a patient presents with targetoid lesions to avoid missing an important diagnosis.

Declaration of patient consent

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

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Conflicts of interest

There are no conflicts of interest.

References

1. Madke B, Chougule B, Kar S, Khopkar U. Appearances in clinical dermatology. Indian J Dermatol Venereol Leprol 2014;80:432.
2. Burden DA and Kirby B. Psoriasis and related disorders. In: Griffiths CE, Barker J, Bleiker T, Chalmers RC, editors. Rook's Textbook of Dermatology. 9th ed. UK: Wiley Blackwell Publications; 2016. p. 35.1-35.30.
3. Hughey LC. Approach to the hospitalized patient with targetoid lesions. Dermatol Ther 2011;24:196-206.
4. Mccoy SS, Nagaraja V, Paviol S, Gudjonsson JE, Kahlenberg JM. Exacerbation of psoriasis due to hydroxychloroquine. Arch Med 2015;7:7-9.