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Case Report

Photodistributed granuloma annulare responsive to topical corticosteroids

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ABSTRACT

Granuloma annulare is a benign granulomatous disorder which is usually of unknown etiology. It is usually known to be associated with diabetes mellitus. It presents in various forms like localized, generalized, subcutaneous and perforating. We report a 52 year old female who presented with annular lesions exclusively over sun-exposed areas and was diagnosed with granuloma annulare. Photodistributed pattern of granuloma annulare has rarely been mentioned in the literature.

Keywords: Granuloma annulare, Photodistribution, Annular, Corticosteroids

INTRODUCTION

Granuloma annulare (GA) is a necrobiotic disorder of skin and subcutaneous tissue characterized by granulomatous annular plaques, nodules or papules.[1,2] Atypical presentations can be a diagnostic challenge especially in tropical countries where Hansen's disease is endemic. GA is also usually resistant to therapy and often requires prolonged duration of therapy.[2] We report a case of photo-distributed GA with excellent therapeutic response.

CASE REPORT

A 52-year-old female presented with asymptomatic lesions on her forearms of 6-7 month's duration with history of photo-aggravation of lesions. Her known co-morbidities included hypertension of 15 years. There was a past history of USG proven hepatitis though viral markers were negative. Examination revealed hypopigmented non-anaesthetic annular plaques and erythematous papules over the V-area of chest, extensor aspect of forearm and dorsa of hands with sparing of the sun protected areas (Figure 1). There was no history of diabetes mellitus. Differential diagnosis considered were photodermatitis, photo-distributed granuloma annulare and granuloma multiforme. Biopsy report showed dermal infiltration with macrophages, lymphocytes with occasional giant cells around degenerating collagen bundles which was suggestive of interstitial type of granuloma annulare (Figure 2). Verhoeff-Van-Gieson staining showed presence of elastic tissue ruling out granuloma multiforme. All other investigations were normal but for hypercholesterolemia and hypothyroidism. On the basis of clinical lesions and histopathology, a final diagnosis of photo-distributed GA was made. Patient was treated with clobetasol propionate 0.05% ointment and sunscreen with strict advice for photo-protection. On follow up after one month and six months showed significant reduction in the skin lesions without any new lesion occurrence.

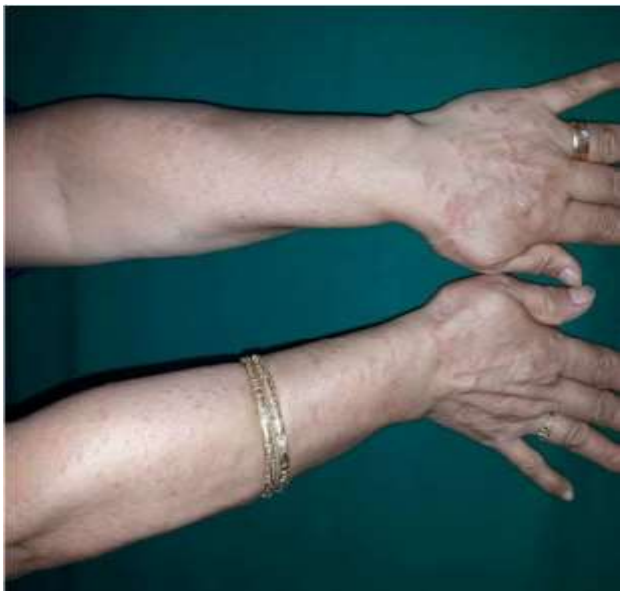

Figure 1: Annular plaques and papules on the dorsa of hands and extensor aspect of forearm.

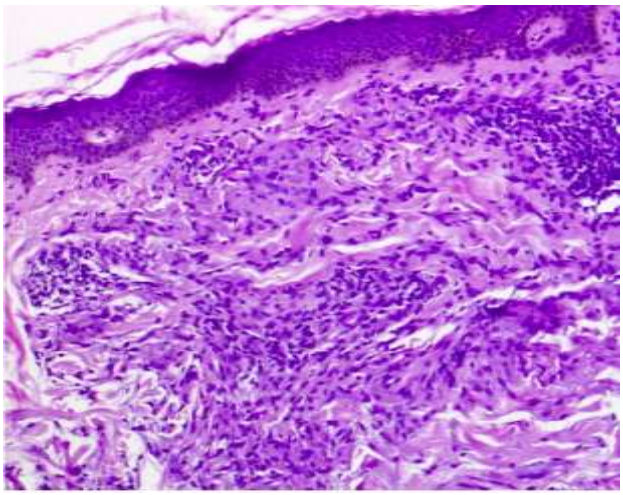

Figure 2: (H and E 20X) diffuse interstitial infiltration in dermis by histiocytes with abundant cytoplasm around degenerating collagen and perivascular mononuclear infiltrate.

DISCUSSION

GA is a chronic non-infectious granulomatous necrobiotic disorder first described by Colcott Fox 1895 and coined in 1912 by Radcliffe-Crocker. Reportedly primarily in children, it can be seen across all ages with a female predominance.[1,3] Numerous clinical variants of GA exist which include the localized, generalized, diffuse, subcutaneous, perforating, linear, patch etc. Localized GA is considered to be most common amongst others.[3] There is overlap between the different variants, and more than one morphologic type may coexist in the same patient. Photo-distributed GA is rarely reported.[4] Aetiology and pathogenesis of GA is obscure; sunlight has been described as a triggering factor in many cases. However, GA having an exclusive photo-distribution is not commonly seen. Our patient gave a specific history of photo sensitivity which may account for the photo-distribution. Differential diagnosis like photodermatitis and Hansen disease were ruled out by clinical and histopathology. Systemic associations of GA are usually associated with the generalized variant than others.[1] Hyperlipidaemia and infections with hepatitis B and C have been reported to occur in patients with GA.[5] Our patient was diagnosed with hepatitis on basis of USG examination but viral markers were negative, thus raising a possible non-infective liver involvement as well. She presented with systemic diseases like hypothyroidism, hypercholesterolemia, hypertension and hepatitis. Whether these are age/gender related diseases or associations of GA is debatable.[3] It is advisable to screen for common associations like diabetes, thyroid and lipids in all patients of GA as it may be cutaneous marker of these diseases. GA is usually resistant to treatment and sometimes undergoes spontaneous resolution.[1-3] The long list of therapeutics mentioned is a testament to the resistant nature of GA. The various modalities mentioned include topical steroids, calcineurin inhibitors, liquid nitrogen cryotherapy, Lasers, imiquimod, anti-malarials, dapsone, phototherapy etc. Our patient showed excellent response to a combination of strict photprotection and topical super potent steroids with excellent response noted within one month of therapy itself.

CONCLUSION

Very few cases of photo-distributed GA exist in English literature. We report this case for the rarity and significant response to photo-protection and topical steroids.

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REFERENCES

1. Balachandran C, Nayak UKS. Necrobiotic Disorders. In: Sachidanand S, Oberoi C, Inamadar A (eds). IADVL textbook of dermatology.4th edition. Mumbai: Bhalani Publishing house; 2015: 1753-1769.
2. Nambiar KG, Jagadeesan S, Balasubramanian P, Thomas J. Successful Treatment of Generalized Granuloma Annulare with Pentoxifylline. Indian Dermatol Online J. 2017;8(3):218-20.
3. Cheng, Yu-Wen, Tsai, Wen-Chien, Chuang, Fu-Chen et al. A retrospective analysis of 44 patients with granuloma annulare during an 11-year period from a tertiary medical center in south Taiwan. Dermatologica Sinica. 2016;34(3):121-5.
4. Benjegerdes K, Mahmood T, Parekh P. Photodistributed granuloma annulare. J Am Academy Dermatol. 2017;76(6):197.

5. Wu W, Robinson-Bostom L, Kokkotou E, Jung H, Kroumpouzos G. Dyslipidemia in Granuloma Annulare. A Case-Control Study. Arch Dermatol. 2012;148:1131–6.

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