

■ Case Report

Generalized granuloma annulare

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Abstract

A 55 year old female came to Skin OPD with extensive pruritic annular papules and plaques over both upper limbs, lower limbs, back and abdomen. Biopsy from one of the lesion confirmed histopathologically Granuloma annulare. This case is being presented for its extensive skin involvement without any systemic disorder.

Keywords: Generalized Granuloma Annulare.

Introduction

Granuloma annulare (GA) is a disease of the skin of unknown aetiology and pathogenesis characterized by foci of alteration of collagen surrounded by histiocytes and lymphocytes. Colcott Fox first described granuloma annulare in 1895 and its specific entity was established by Radcliffe-Crocker label in 1902¹. Granuloma annulare is relatively common disease that occurs in all age groups and rarely in infancy. It is characterized clinically by papules and annular plaques. It has been found to be associated with diabetes mellitus, malignancies, thyroid dysfunction, acquired immunodeficiency syndrome, hepatitis C, and other viral infections². Familial cases of granuloma annulare has also been reported³. The following clinical variants are recognized:- Localized, Generalised, Subcutaneous, Perforating and Patch type granuloma annulare.

Generalized granuloma annulare occurs predominantly in adults comprising for 8 to 15 percent of cases of granuloma annulare. The trunk is usually involved, along with the neck and extremities. Face, scalp, palms, and soles may be affected.^{4,5} 4.5% cases of generalized granuloma annulare is induced by anti-tumor necrosis factor therapy.⁶

Case report

A 55 year old lady came to our dermatology outpatient department with history of pruritic eruptions over the both upper limbs, lower limbs, back and abdomen consisting of annular papules and plaques. Physical examination revealed erythematous-violaceous annular papules and plaques with raised borders of size 0.5 cm to 1 cm (Fig.1) covering both upper limbs and lower limbs, abdomen, face (Fig.2) and back. Her routine investigations were within normal limits with normal blood sugars. Histopathology revealed a granulomatous infiltrate of lymphocytes and histiocytes around a central zone of degenerated collagen (Fig. 3) consistent with granuloma annulare. To rule out any systemic involvement Hemogram, Thyroid profile, ELISA for HIV, Chest X ray, lipid profile, HBs Ag & HCV serology were done and found to be within normal limits. Her semen tested negative for in HIV testing ELISA, HBs Ag & HCV art body.



Fig.1. Granuloma annulare lesions on the arm.

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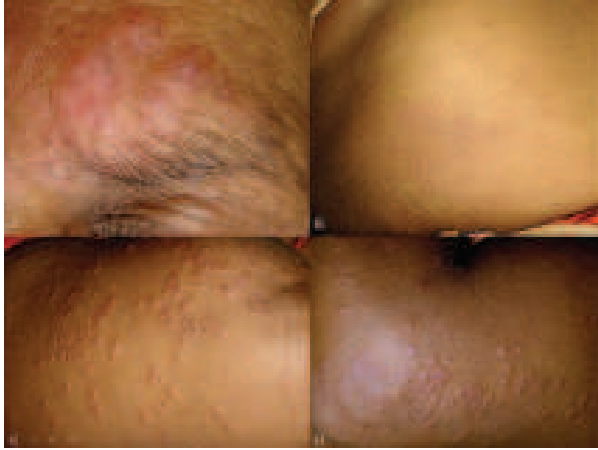


Fig.2. Annular lesions of granuloma annulare on the face (A), abdomen (B) and upper limbs (C,D).

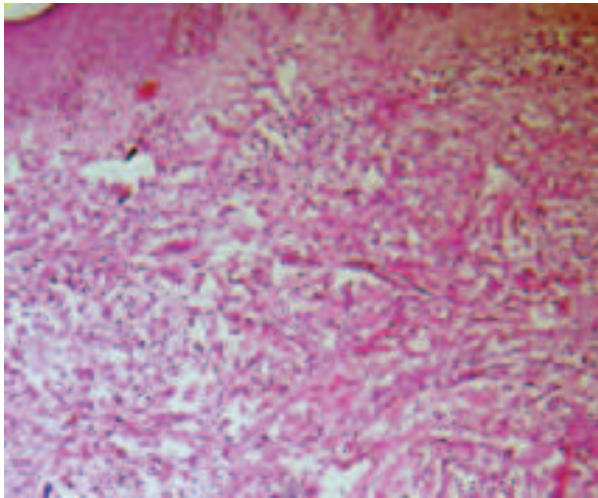


Fig.3. H&E stained specimen at 400X showing degenerated collagen surrounded by histiocytes and lymphocytes suggestive of granuloma annulare.

Discussion

Granuloma annulare is a common, skin disorder, which occurs twice as commonly in women with 67% annular lesions. The age of onset is usually prior to 30 years. Our patient was 55 year old. Approximately 15 percent of patients have more than ten lesions and are thus considered to have generalized granuloma annulare. Our patient had extensive lesions which have a predilection for the trunk, forearms and proximal aspects of the extremities. Generalized granuloma annulare may represent a paraneoplastic phenomenon in patients with lymphoma or other malignant conditions^{3,7}. One case of generalized granuloma annulare reported in 94 year old male⁸. Two cases reported as a initial

manifestation of chronic myelomonocytic leukemia.⁹ Generalized granuloma annulare associated with gastrointestinal stromal tumor.¹⁰ 21% of Generalised granuloma annulare has been associated with Diabetes mellitus¹¹. Our case had no systemic involvement.

Treatment has been attempted with topical and oral glucocorticoids, antimalarials, hydroxychloroquine, dapsone, cryosurgery, niacinamide, cyclosporine, chlorambucil, retinoids and PUVA photochemotherapy, topical application of vitamin E, tumour necrosis factor-alpha inhibitor infliximab, topical tacrolimus (calcineurin inhibitor), laser destruction¹². Consultation with a dermatologist is recommended because of the possible toxicities of these agents. We treated our patient with oral Prednisolone with good response. This case is being presented as its rare to find a case of generalized granuloma annulare in a middle aged female with extensive skin involvement and no systemic disorder which resolved completely with only oral steroids. The patient is followed up for last 6 months for any systemic disorder.

References

1. Burns DA. Granuloma annulare. In: Burns T, Breathnach S, Cox N, Griffiths C, editors. Rook's textbook of dermatology, 7th ed. Oxford, London: Blackwell Science; 2004:p57.109-57.119.
2. Granel B, Serratrice J, Rey J, Bouvier C, Weiller-Merli C, Disdier P, et al. Chronic hepatitis C virus infection associated with a generalized granuloma annulare. J Am Acad Dermatol 2000;43:918.
3. Howard A, White Jr CR. Non-infectious granulomas. In: Bologna JL, et al, eds. Dermatology. Mosby: London, 2003:1455b.
4. Prendiville JS. Granuloma annulare. In: Wolff K, Goldsmith LA, Katz SI, Gilchrest BA, Paller AS, Leffell DJ, editors. Fitzpatrick's dermatology in general medicine. 7th ed. New York: McGraw-Hill, 2008:p369-73.
5. Villegas RG, Barona JS, Tapia AG, Sanchez AV, Peralto JL, Dlez LI et al. Pustular generalized perforating granuloma annulare. Br J Dermatol 2003;149:866.
6. Voulgari PV, Markatseli TE, Exarchou SA, Zioga A, Drosos AA. Granuloma annulare induced by

- anti-tumour necrosis factor therapy. *Ann Rheum Dis.* 2008;67:567-70.
7. Bhushan M, Craven NM, Armstrong GR, Chalmers RJG . Lymphoepithelioid lymphoma (Lennert's lymphoma) presenting as atypical granuloma annulare. *Br J Dermatol* 2000;142:776.
 8. Olympia Kovich MD and Susan Burgin MD. Generalized granuloma annulare *Dermatol Online J* 2005;11:23.
 9. Hinckley MR, Walsh SN, Molnár I, Sheehan DJ, Sanguenza OP, Yosipovitch G. Generalized Granuloma Annulare As an Initial Manifestation of Chronic Myelomonocytic Leukemia: A Report of 2 Cases. *Am J Dermatopathol* 2008;30:274-77.
 10. Chiu ML, Tang MB. Generalized granuloma annulare associated with gastrointestinal stromal tumour: case report and review of clinical features and management. *Clin. Exp Dermatol* 2008;33:469-71.
 11. Khatri M L, Shafi M, Sen NK. Generalised granuloma annulare: *Indian J Dermatol, Venereol Leprol* 1995;61:367-68.
 12. Morita K, Okamoto H, Miyachi Y. Papular elastolytic giant cell granuloma: a clinical variant of annular elastolytic giant cell granuloma or generalized granuloma annulare? *Eur J Dermatol* 1999;9:647.