Ind J Dermatol Venereol Leprol 1995; 61 : 367-8

GENERALIZED GRANULOMA ANNULARE

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A 35-years-old female patient had generalized pruritic papular lesions, distributed like dermatitis herpetiformis for last 4 years. Histopathologic changes were typical of granuloma annulare with negative results of direct immunofluorescence. The patient did not have association of diabetes mellitus or any other systemic disease. She failed to respond to dapsone therapy and 13-cis-retinoic acid.

Key words : Generalized granuloma annulare (GGA), Dapsone, 13-cis-retinoic acid

Introduction

Generalized granuloma annulare (GGA) is an uncommon disease of unknown aetiology. It is characterized primarily by papular lesions with tendency to annular grouping. It may involve any area of the body and occasionally pruritic. The colour of the lesions may be skin tone, yellow, red or tan.[1] This is not associated with any internal disease, although association with diabetes mellitus has been reported in some cases.[2,3] GGA differs from the localized form by a later age of onset, protracted course with only rare spontaneous resolution, poor response to therapy[4] and increased prevalence of HLA Bw 35.[5]

Case Report

A 35-years-old married Libyan female patient has been having gradually developing moderately itchy, reddish papular lesions in groups and in annular arrangement for last 4 years. Distribution of the lesions was almost generalized except face, with predilection on extensor aspect of the extremities and scapular regions (Fig 1).

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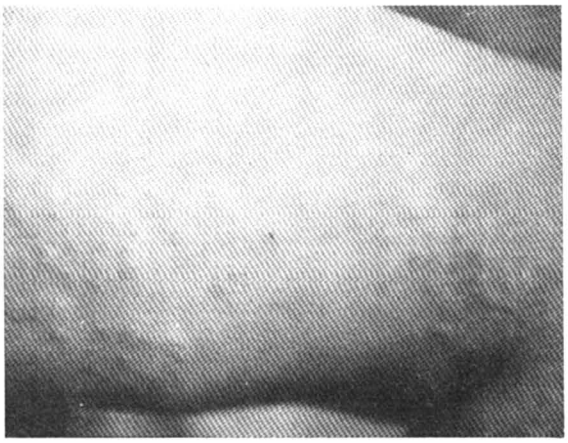

Fig. 1. Papular lesions of GGA in grouped and annular configuration.

Histopathologic studies revealed several small granulomatous lesions in the upper and mid dermis, composed of small focci of necrobiotic collagen surrounded by histiocytes in palisading arrangement and intermingled with lymphoid cells and fibroblasts. The degenerated collagen appeared pale and homogeneous. Alcian blue stained section showed bundles of incomplete collagen degeneration seperated by histiocytes and lymphocytes with mucin deposits. The findings were suggestive of granuloma annulare. Direct immunofluorescence done on frozen sections using antibodies against IgG, IgA, IgM and C3 did not reveal any deposits.

The patient was initially treated with interupted courses of Dapsone 100-200 mg/

day for 6 months without any significant improvement except partial relief in itching. Later she was given 13-cis-retinoic acid 30mg/day for 4 months but without remarkable effect, so discontinued and for last 6 months she is only on local emollients.

Comments

In a study of 100 cases of GGA, Dabski and Winkelmann[6] have seen annular lesions in 67% of their cases. Our patient had both annular and grouped lesions. This patient had distribution of lesions like that of dermatitis herpetiformis.

Association of diabetes mellitus has been recorded in 21% of the GGA cases and 9.7% of the localized GA cases.[6] Our patient was not diabetic. Laboratory abnormalities like hyperlipidemia, presence of circulating antinuclear antibodies (ANA) and hypergamaglobulinemia has been observed in some cases of GGA.[6] Investigations of our patient did not reveal any of these abnormalities.

As described earlier, the histopathological changes in our patient were typical of granuloma annulare. Dabski and Winkelmann,[7] in their study observed necrobiosis in 53% of the patients with GGA and 79% of the patients with localized GA; fragmentation of collagen bundles, similar in both and collagen sclerosis with strong palisading pattern of histiocytes, more in localized GA. They also observed positive results of direct immunofluorescence in 13 out of 23 patients, the common feature was IgM cytoid bodies along the basement membrane. In our patient results of direct immunofluorescence were negative.

Dapsone has been successfully used in treating cases of GGA in the past.[8,9] We did not observe any significant improvement with dapsone therapy. Resolution of GGA lesions with etretinate therapy has been previously reported.[10] Our patient did not show any improvement with systemic retinoid therapy. Many other treatments proposed are topical, intralesional and systemic corticosteroids, chloroquine, potassium iodide, niacinamide, chlorpropamide, cyclosporine[9] and chlorambucil.[6]

References

1. Cunliffe WJ, Necrobiotic discorders.In: Textbook of Dermatology (Champion RH, Burton JL, Ebling FJG, eds) Blackwell Scientific Publications, 5th edn. 1992; 2027-35.
2. Haim S, Friedmann-Birnbaum R, Shafrir A. Generalized granuloma annulare: relationship to diabetes mellitus as revealed in 8 cases. Br J Dermatol 1970; 83: 302-5.
3. Haim S, Friedman-Birnbaum R, Haim N, et al. Carbohydrate tolerance in patients with granuloma annulare: Study of fifty two cases. Br J Dermatol 1973; 88: 447-51.
4. Dicken CH, Carrington SG, Winkelmann RK. Generalized granuloma annulare. Arch Dermatol 1969; 99: 556-63.
5. Friedman-Birnbaum R, Haim S, Gideone O, et al. Histocompatibility antigens in granuloma annulare: comparative study of generalized and localized types. Br J Dermatol 1978; 98: 425-8.
6. Dabski K, Winkelmann RK. Generalized granuloma annulare: Clinical and laboratory findings in 100 patients. J Am Acad Dermatol 1989; 20: 39-47.
7. Dabski K, Winkelmann RK. Ceneralized granuloma annulare: Histopathology and immunopathology. J Am Acad Dermatol 1989; 20: 28-39.
8. Steiner A, Pehamberger H, Wolf K. Sulfone treatment of granuloma annulare. J Am Acad Dermatol 1985; 15: 1004-8.
9. Filotico R, Vena GA, Coviella C, et al. Cyclosporine in the treatment of generalized granuloma annulare. J Am Acad Dermatol 1994; 30: 487-8.
10. Botella-Estrade R, Guillen C, Sanmartin O, et al. Disseminated granuloma annulare: resolution with etretinate therapy. J Am Acad Dermatol 1992; 26: 777-8.