Annular Elastolytic Giant Cell Granuloma Mimicking Pityriasis Versicolor

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Abstract

Annular Elastolytic Giant Cell Granuloma (AEGCG) is a rare form of granulomatous dermatoses with various clinical manifestations. Herein, apityriasis versicolor-like unusual clinical presentation was presented. The pathological findings and different treatment methods were also briefly reviewed.

Keywords: Annular Elastolytic Giant Cell Granuloma; Pityriasis Versicolor

Case Report

A 43-year-old man went to our clinic with multiple asymptomatic slightly elevated reticulated brownish plaques over chest and neck for 5 years. (Figure 1) He had an indoor occupation with occasional outdoor activities on weekends. The skin lesion started at chest, and these plaques spread gradually and coalesced to form large irregular plaques, mimicking pityriasis versicolor. (Figure 2) He was treated with oral ketoconazole and topical butenafine cream without clinical response 5 years ago, and the skin lesions enlarged gradually. Incision biopsy was performed on the elevated plaque of the neck and the sample was sent for histological examination. Microscopic examination showed granulomatous infiltrates of multinucleated giant cells in the upper and mid dermis without necrobiosis, solar elastosis, or mucin deposition in the upper dermis. (Figure 3) Many multinucleated giant cells are present with phagocytosis of elastic fibers, (Figure 4) which is compatible with annular elastolytic giant cell granuloma. No diabetes or other systemic diseases were found during clinical survey. The patient then received topical clobetasol propionate foam for 1 month without obvious improvement. He was then lost follow-up.

Discussion

Annular Elastolytic Giant Cell Granuloma (AEGCG) is a rare form of granulomatous dermatoses, characterized histologically by phagocytosis of elastic fibers by multinucleated giant cells. AEGCG was isolated in 1979 by Hanke et al. on the basis of five cases seen in females. AEGCG includes the diseases previously

Figure 1: There were asymptomatic slightly elevated reticulated brownish plaques over chest and neck.

Figure 2: These plaques spread gradually and coalesced to form large irregular plaques, mimicking pityriasis versicolor. The elliptical mark indicated biopsy site.

called as actinic granuloma, atypical facial necrobiosis lipoidica, and Miescher's granuloma [1].

The clinical presentation is variable with erythematous papular lesions, either alone or in groups, with a raised border and a lighter center tending towards atrophy [1-5]. It is an uncommon disease, which usually affects old adults with no

Figure 3: Multinucleated giant cells composing a granulomatous infiltrate occupying the upper and mid dermis. (H & E, original magnification ×100).

Figure 4: Phagocytosis of elastic fibers by multinucleated giant cells. (H&E, original magnification x200).

sexual predilection and frequently occurs on the sun-exposed area. However, generalized forms with red asymptomatic papules have also been reported [2]. Clinical differential diagnoses include granuloma annulare, actinic granuloma, atypical necrobiosis lipoidica, and granuloma multiforme. Although reticular variants of AEGCG have been described [6, 7], apityriasis versicolor-like clinical presentation in our case has never been reported in the literature. This unusual presentation should be considered as a rare manifestation of AEGCG.

The histological appearance of AEGCG is characteristic, with an image of giant cell elastophagic granuloma from which the name of the disease is taken. There is no mucin deposit or necrobiosis seen in granuloma annulare and necrobiosis lipoidica [8]. This appearance allows the disease to be differentiated from a number of other granulomatous diseases. The pathological findings in our patient are typical of AEGCG. Some authors

consider AEGCG as a prodromal stage of Mid-Dermal Elastolysis (MDE) [9]. They suggest that AEGCG and MDE might represent different stages in the clinical spectrum of dermal elastolysis [9].

The etiology is unknown and treatment is empirical. Spontaneous remission can occur [7-10], and consistent results have not been obtained with any treatments [11]. Previously reported effective therapies for AEGCG include topical and intralesional steroid [12, 13], oral antimalarials, such as quinacrine [14], chloroquine [3], and hydroxychloroquine [15-18], clofazimine [19], topical pimecrolimus [20], tacrolimus, [4,21] oral retinoid acid derivatives like isotretinoin [22] and acitretin [23-24], dapsone [25], fumaric acid [26], cyclosporine [27, 28], and minocycline [29]. Phototherapy (such as PUVA [30] or narrow band UVB [31]) is also effective in some cases. However, some patients show poor responses to these therapies. Our patient did not respond to topical steroids, nor did he receive any other treatment due to lost follow-up.

In conclusion, although the clinical findings of localized or generalized annular erythematous papules and plaques with atrophic center over sun-exposed area are the cardinal presentation of AEGCG, the pityriasis versicolor-like manifestation should also be considered as a rare clinical variant.

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