

Papular variant of actinic granuloma: a case report

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Abstract

Annular elastolytic giant cell granuloma (AEGCG) is an uncommon granulomatous skin disease characterized by giant cells in the dermis phagocytosing damaged elastin fragments, found mostly in areas that are more commonly exposed to sunlight. Asymptomatic annular plaques is the most common clinical presentation, although rare reports of a papular variant of AEGCG exist [1, 2]. We report a case of annular elastolytic giant cell granuloma papular variant with a history of allergies and intensive photodamage.

Keywords: Annular elastolytic giant cell granuloma; papular variant; elastophagocytosis; multinucleated giant cells; unspecified dusty substance; pathogenesis.

Case Report

A 78-year-old man presented with a one-year history of skin lesions on his anterior neck, submandibular and retro-auricular region. His medical history was unremarkable except for respiratory allergies (prick test positivity: dermatophagoides pharinae +++, dermatophagoides pteronissinus +++). The lesions were recalcitrant to topical corticosteroids and ivermectin. Physical examination revealed multiple round, reddish papules up to 3-5 mm in diameter, uniformly distributed over severely photodamaged skin on the anterior neck, submandibular and retro-auricular region (**Figures 1 a-b**). At first, cutaneous sarcoidosis and granulomatous rosacea were suspected. Routine blood analysis and angiotensin-converting enzyme were within normal ranges. A chest X-ray also resulted unremarkable. Skin biopsies were performed on cutaneous lesions on neck. Histological examination revealed a dermal non-necrotizing chronic granulomatous infiltrate of epithelioid histiocytes, lymphocytes, plasma cells and numerous multinucleated giant cells with focal and minimal aspects of elastophagocytosis. Severe dyselastosis was present in the peri-lesional dermis (**Figures 2 a-b**). All initial diagnostic hypotheses were ruled out and clinical and histological evaluation allowed the diagnosis of actinic granuloma (AG).

Although AG is typically characterized by asymptomatic annular plaques, [1] rare cases of a papular variant of AG have been reported [2]. Clinically, papular variant of AG may mimic other granulomatous disorders, such as cutaneous sarcoidosis, gran-

ulomatous rosacea and granuloma annulare; the diagnosis is mainly based on quantitative differences in the histological features [3].

In fact, histological features of AG include a chronic non-necrotizing granulomatous inflammatory infiltrate composed of epithelioid histiocytes, plasma cells and numerous multinucleated giant cells with marked loss of elastic tissue and focal aspect of elastophagocytosis within the superficial and mid dermis; severe dyselastosis within the peri-lesional dermis; absence of mucin and necrobiosis [4]. On the other hand, sarcoidosis is characterized by a dense, non-caseating "palisaded" granulomatous infiltrate in the dermis. The granulomata are discrete and uniform in shape and size and are composed of epithelioid histiocytes. Variable numbers of Langhans giant cells are also present. Rarely mucine and elastophagocytosis are seen. There is no correlation between sarcoidosis and actinic damage. Foreign body granulomata reacting to D. Folliculorum, actinic dyselastosis, sparse giant cells, elastophagocytosis, and involvement of sun-damaged areas of the skin can be seen in both granulomatous rosacea and AG. The absence of dermal mucin, necrobiosis and palisading granuloma and the presence of marked elastolysis help to distinguish AG from granuloma annulare [5].

Our case highlights an infrequent subset of AG which, in consideration of its clinical features, makes problems of differential diagnosis. We report it to raise attention on this rare, perhaps often misdiagnosed, variant. As AG typically presents

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with annular plaques, papular lesions might be mistaken for other diagnoses. However, when they appear on photodamaged skin in elderly patients, clinicians should take in consideration AG in the differential diagnosis.

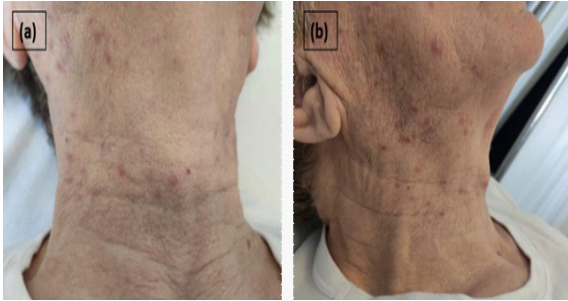


Figure 1: a) Pink-red papular lesions on the anterior and right regions of the neck.

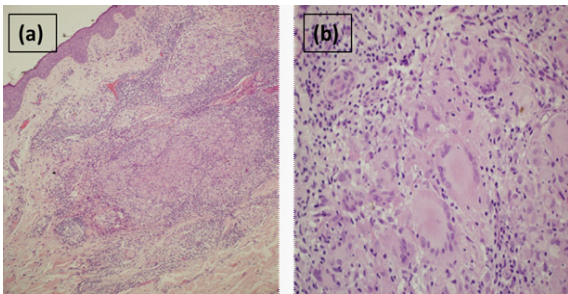


Figure 2: a) Ematoxylin and eosin (H&E) stain, original magnification 10x: a granulomatous inflammatory infiltrate within the superficial and mid dermis is observed. A severe actinic elastosis is present.

Figure 2: b) Ematoxylin and eosin (H&E) stain, original magnification 40x: the granulomatous inflammatory infiltrate is composed of epithelioid histiocytes, numerous multinucleated giant cells and scattered lymphocytes. Necrobiosis is not present.

Conflicts of Interest: None

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