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SHORT COMMUNICATION

Case report

Uveitis associated with granuloma annulare

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PURPOSE. *To report a case of uveitis associated with granuloma annulare (GA). GA is a benign, usually self-limited dermatosis of unknown origin, causing necrobiotic dermal and subcutaneous papules. So far, ocular involvement has not been reported in GA.*
METHODS. *We describe a case of uveitis with GA. Ocular examination findings were consistent with uveitis. Histopathologic studies on lower extremity lesions revealed features consistent with GA.*
RESULTS. *The patient was successfully treated with systemic and topical corticosteroids. After two months, however, the skin and eye lesions relapsed. When the same treatment was restarted, her lesions regressed within four weeks.*
CONCLUSIONS. *This case provides an example of concomitant uveitis and GA. To our knowledge, this is the first report of this combination. (Eur J Ophthalmol 2003; 13: 93-5)*

KEY WORDS. *Uveitis, Granuloma annulare*

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INTRODUCTION

Uveitis is an intraocular inflammatory condition involving the uveal tract and adjacent structures, and may be due to a large group of infectious, traumatic, neoplastic, and autoimmune diseases (1-3). Some granulomatous diseases such as sarcoidosis, and toxocariasis are implicated in granulomatous uveitis etiology (4, 5). Granuloma annulare (GA) is a benign, usually self-limited dermatosis of unknown cause, giving rise to necrobiotic dermal and subcutaneous papules. GA is one of the noninfectious granulomatous diseases. In the literature, there are cases of GA in association with malignant lymphoma, AIDS, insulin-dependent diabetes and thyroid disease (6, 7). We describe a patient with uveitis and GA, to our knowledge an association not reported so far.

Case report

A 51-year-old woman presented with blurred vision, pain, and redness in her left eye, lasting two days. On dermatological examination, she had symmetrical erythematous papules and plaques in an annular pattern, involving the dorsal and extensor surfaces of the lower and upper extremities, of two months' duration (Fig. 1). Physical examination was normal except for routine ophthalmologic examination, including visual acuity, slit-lamp biomicroscopy, intraocular pressure, direct ophthalmoscopy. The right eye was normal but in the left eye visual acuity was 6/10, and intraocular pressure was 28 mmHg. The pathological findings included moderate ciliary injection, 2+ anterior chamber flare and cells, and medium-sized keratic precipitates. Biomicroscopic examination of the anterior vitreous revealed 1+ cellular reaction. Fundus examination and fundus fluorescein angiography were normal. These findings were consistent with anterior segment inflammation.

The results of routine complete blood cell count, urinanalysis, chemistry group and erythrocyte sedimentation rate were within normal limits. Antinuclear and anti-DNA antibodies, and rheumatoid factor were negative, C3 and C4 complement fractions levels were normal. Antibodies against hepatitis B and C were negative as was HIV. Syphilis serology was negative.

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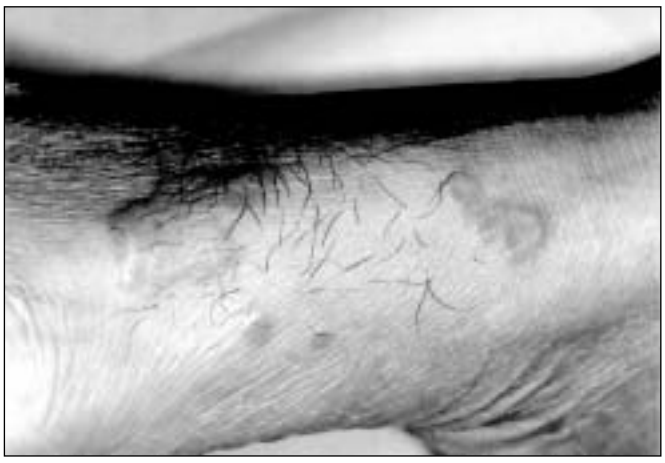

Fig. 1 - *Erythematous papules in an annular pattern on the right foot.*

Chest X-ray and abdominal ultrasonography gave no remarkable findings. Serum levels of triiodo-thyronine, thyroxine, and thyroid-stimulating hormone were normal. Anti-peroxidase, anti-thyroglobulin and anti-microsomal antibodies were negative. Tuberculin intradermal test was negative.

A skin biopsy specimen from the lower extremity showed granulomatous dermatitis in which histiocytes were arrayed mostly in palisade patterns around a focus of degenerated collagen and blue-gray granular material. Weak positivity was detected in sections stained by mucicarmine. The histopathologic features were consistent with GA.

The patient was treated with systemic corticosteroids (75 mg deflasocort daily) for the skin lesions. Topical corticosteroid (prednisolone acetate) and timolol maleate 0.5% were used to reduce ocular inflammation and IOP. The skin eruptions and eye lesions resolved within a few weeks and steroid therapy was discontinued within two months. Two months later, however, both the skin eruption and uveitis relapsed. The same corticosteroid therapy was reinstituted. Skin and eye lesions regressed within one month. No uveitis and GA relapse have been observed in a follow-up of three months.

DISCUSSION

GA is an uncommon cutaneous disease of unknown etiology. The skin eruption involves mainly papular primary lesions with an annular pattern, and can eventually affect any area of the skin (8, 9). The role of cell-mediated immune mechanisms in the pathogenesis has been described (10). A cell-mediated immune response appears to be involved, with a prominent presence of activated helper T cells (11). Delayed hypersensitivity skin tests may sometimes produce histopathologic changes identical to those seen in GA (12). Blood vessel deposits of IgM and the C3 complement fraction have been reported (11). Uveitis may be associated with skin and multisystemic vasculitic diseases such as systemic lupus erythematosus, polyarteritis nodosa, Sjogren's syndrome, Wegener's granulomatosis, and Behçet's disease (13).

In our case, not only the primary attacks, but also the recurrences of uveitis and GA occurred at the same time. This may indicate that two entities have the same etiopathogenic mechanism.

Sarcoidosis is one of the most important causes of granulomatous uveitis (5, 14). Pyoderma gangrenosum must also be considered in the differential diagnosis of skin disorders with ocular involvement (15). Like sarcoidosis, GA may contribute to the development of uveitis and its remission under steroid therapy indicates that this approach may reduce the granulomatous reaction of the eye through suppression of the systemic granulomatous disease.

Uveitis associated with GA has not been mentioned in the literature. To our knowledge, our patient is the first case of uveitis associated with GA. We conclude that dermatologists and ophthalmologists should question patients with GA about ocular complaints and GA may be considered an associated etiologic factor for uveitis.

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