Disseminated Granuloma Annulare Associated With Ulcerative Colitis

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Citation

A Tresh, A Evans, S Morley. *Disseminated Granuloma Annulare Associated With Ulcerative Colitis*. The Internet Journal of Dermatology. 2006 Volume 5 Number 2.

Abstract

Granuloma annulare (GA) is a benign skin condition that typically consists of grouped papules in an enlarging annular shape. The four main clinical variants of GA are: localized, disseminated, subcutaneous, and perforating. The aetiology of GA is unknown, but it has been reported to follow trauma, malignancy, viral infections, insect bites, and tuberculosis skin tests. Association with Diabetes mellitus is controversial. We reported the case of a 39-year-old woman with disseminated papular form of GA associated with ulcerative colitis. Various different dermatological conditions have been reported in association with ulcerative colitis.

CASE REPORT

We report a case of the disseminated papular variant of GA in a patient with ulcerative colitis. The 39 year old Caucasian female presented in February 2005 with a widespread non itchy papular rash. She was not diabetic and had no other medical problem. Several blood tests including syphilis serology were negative. Soon after the appearance of the rash she developed bloody diarrhoea. Colonoscopy and colonic biopsies confirmed a diagnosis of ulcerative colitis. A diagnostic skin biopsy showed discrete foci of collagen necrobiosis surrounded by an inflammatory infiltrate of lymphocytes and histiocytes. These histological findings were considered to be typical of the papular variant of GA (figures 1 and 2).

Figure 1

Figure 1: Papular variant granuloma annulare. H. and E. stain x40.

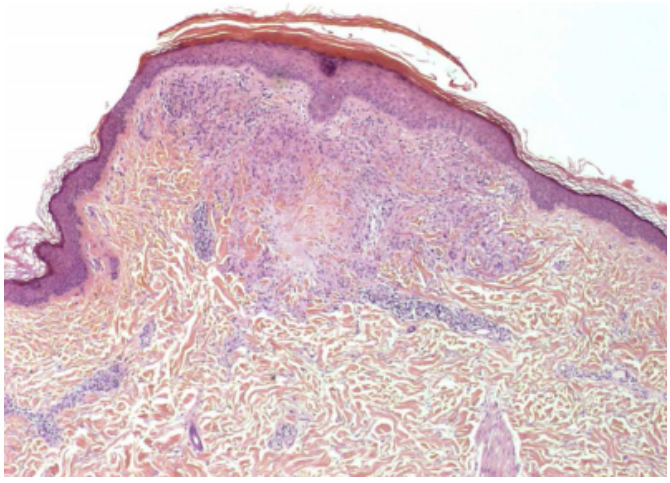
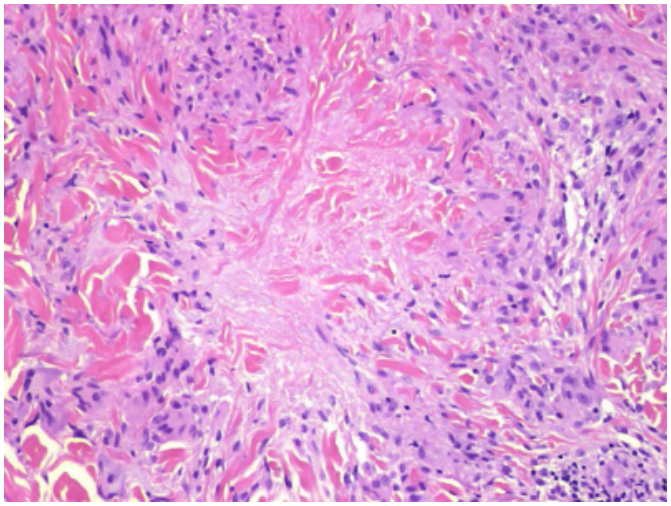


Figure 2

Figure 2: Granuloma annulare. There is an extensive necrobiosis surrounded by an ill-defined histiocytic infiltrate. H. and E. stain x200.



Following treatment with systemic steroids for ulcerative colitis the rash subsided partially. Thereafter the patient noticed increase activity of the rash with each exacerbation of her ulcerative colitis. In July 2005 she again presented with a relapse of her cutaneous eruption and colitis. She was commenced on Balsalazid sodium orally and Mesalazin (Pentasa) suppositories as maintenance treatment for her ulcerative colitis. As her skin condition remained active we started her on an initial trial of a narrowband UVB which had stopped following 12 treatments as the patient noticed no improvement. Phototherapy with UVA1 was then planned as this modality has been demonstrated to be of value in the management of disseminated GA ([1]). However, when the patient presented for her UVA1 treatment the rash had cleared and further treatment was withheld. We concluded in this case that controlling the activity of ulcerative colitis played a major role in clearing her skin eruption.

DISCUSSION

Granuloma annulare is a benign, asymptomatic, self-limited papular eruption found in patients of all ages. The primary skin lesion usually is grouped papules in an enlarging annular shape. The two most common types of GA are localized, which typically is found on the dorsum of the hands and feet; and disseminated, which is widespread. The other uncommon types are subcutaneous and perforating. While localised forms of GA have a high chance of resolving, the disseminated forms of the disease are difficult to treat and do not tend to resolve totally ([2]). Systemic therapy may be required for disseminated GA, and many different treatments including iodide, dapsone, retinoid, antimalarial agents, niacinamide, cyclosporine, vitamin E combined with a 5-lipoxygenase inhibitor (e.g., zileuton), PUVA, UVA1, fumaric acid, inflamixmab and topical tacroliomus have been proposed. The benefit verses the toxic side affect of most these systemic therapeutic measure should be considered especially with the lack of controlled clinical trials ([3]).

The aetiology of GA is unknown. Several cases in literature described that the onset of GA was associated with viral infection, neoplasm and trauma. The association of GA with diabetes mellitus is controversial. A case-control study failed to reveal any statistically significant correlation between GA and type 2 diabetes mellitus ([4]) Whereas in a retrospective study, 12% of patients with GA had diabetes mellitus ([5]).

Our case describes the rare association of GA with ulcerative colitis. Various different dermatological conditions have been described in association with ulcerative colitis. These include: pyoderma gangrenosum, erythema nodosum ([6]) linear erythema multiforme, lichen planus, vitiligo, aphthous stomatitis ([7]),annular erythema ([8]),neutrophilic pustulosis (Sweet's syndrome) ([9],[10]), vesiculopustular eruption ([11]), IgA dermatosis ([12]), bullous pemphigoid ([13],[14]), erythema elavatum diutinum ([15]), polyarteritis nodosa ([16]), thrombo-embolism ([17]), granulomatous dermatitis ([18]), epidermolysis bullosa acquisita ([19]) and pyodermatitis-pyostomatitis vegetans ([20]).

Granuloma annulare with ulcerative colitis had been reported in literature twice. The first case occurred in a Japanese female who developed GA twice in herpes zoster scars. Soon after the second event, she developed ulcerative colitis ([21]). The other case reported visceral and cutaneous GA in a middle aged man with insulin dependent diabetes, autoimmune Addison's disease, myxoedema and severe ulcerative colitis for which he had a subtotal colectomy with formation of an ileostomy ([22]).

Our patient represents a case of disseminated papular variant GA in association with ulcerative colitis and, as with most of the cutaneous manifestations; the primary therapeutic target remains the bowel. Although there many systemic treatments proposed for the treatment of disseminated GA as stated above most of these trials limited to individual case reports and small series of patients treated without a control group. Such studies cannot establish treatment effectiveness. A well designed randomized control trial is needed.

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