

RESEARCH LETTERS

Association of Inflammatory Eye Disease With Granuloma Annulare?

To our knowledge, 3 reports in the literature document the presence of uveitis in patients with granuloma annulare (GA) (Table). Oz et al¹ first reported this association in a 51-year-old woman with anterior uveitis, an inflammatory disease of the iris and ciliary body. Rahimi and Moinfar² later reported a similar case of anterior uveitis and biopsy-proven GA. Resolution of both skin and ocular disease occurred after administration of topical and systemic corticosteroids; however, these 2 patients relapsed once topical and systemic steroids were tapered.

In the largest study to date, van Kooij et al³ described 8 patients with bilateral, chronic, intermediate uveitis and biopsy-proven localized GA. Of note, intermediate uveitis is much less common than anterior uveitis and is characterized by inflammation of the peripheral retina, pars plana, and vitreous rather than of the anterior uvea. Seven of the patients described had evidence of severe retinal vasculitis complicated by cystoid macular edema, cataract, and glaucoma. One patient required laser photocoagulation for treatment of ischemic retinopathy secondary to vasculitis. These authors proposed that patients diagnosed with GA should undergo a screening evaluation for uveitis and that ophthalmologists should become familiar with the classic presentation of GA. These reports prompted us to question whether screening a cohort of patients with GA would reveal any past or present evidence of uveitis.

Methods. This was a cross-sectional study approved by the University of Louisville institutional review board. A medical records database search was performed within a private practice associated with the Division of Dermatology using the diagnosis of GA and covering the dates January 1, 2003, through October 31, 2005. Patients older than 18 years with the pathologic and/or clinical diagnosis of GA were contacted and scheduled for a voluntary ophthalmologic examination to evaluate them for any signs of either past or present uveitis. All patients signed informed consent forms.

Patient medical charts were reviewed for pertinent clinical data including sex, age, lesion morphologic characteristics and distribution, duration, and medical his-

tory. The diagnosis and classification of uveitis was based on the consensus opinions of the Standardization of Uveitis Nomenclature Working Group.⁴

Results. Sixty-six patients were diagnosed with GA from January 1, 2003, to October 31, 2005. Nineteen patients underwent an ophthalmologic examination. The average age of the patients at the time of the ophthalmologic examination was 52 years (range, 18-70 years). In 15 cases (79%), the diagnosis of GA had been confirmed by biopsy. Disease duration for any presentation of GA ranged from 9 months to 17 years (mean duration, 3.7 years).

Of the 19 patients examined, only 1 had any evidence of past uveitis. That patient denied any history of other autoimmune diseases and reported a 40-year history of recurrent anterior uveitis, but only a 4-year history of GA. Results of HLA antigen typing, if ever performed, were unknown to the patient. The right eye had developed more severe sequelae of uveitis, including cataract and glaucoma, while involvement of the left eye was minimal. Of note, there had been an unrelated laceration of the cornea of the right eye as well as a failed epikeratoplasty following a cataract extraction that left the patient's right eye aphakic.

Comment. Uveitis is an inflammatory eye disease primarily involving the uvea (ie, iris, ciliary body, and choroid) as well as adjacent tissues. The prevalence is estimated at less than 1%, making it a relatively rare disease.⁵ It most commonly involves the anterior uvea, but varies in onset, severity, course, and location within the eye. While there are known systemic infectious and autoimmune diseases with uveitic manifestations, most uveitis cases are idiopathic in origin.⁶

Our cross-sectional study of 19 patients with GA revealed only 1 case of chronic asymmetric anterior uveitis; however, the onset of the 2 diseases was temporally offset by roughly 40 years, making an association between them unlikely. Because the prevalence of uveitis is less than 1% in the general population, it is difficult to assess whether there is an overall higher prevalence among patients with GA. We were unable to establish statistical conclusions in our study owing to the small sample size and cross-sectional design. A larger, multicenter, longitudinal, prospective study would likely be needed to provide any statistically valuable data or to identify an association, if one exists.

While there may be an association between GA and uveitis, it is likely rare and restricted to certain subsets

Table. Cases of Concomitant Uveitis and Granuloma Annulare Reported in the Literature

Source	Study Type	Cases Examined, No.	Cases of Uveitis, No.	Type of Uveitis	Location
Oz et al ¹	Case report	1	1	Acute anterior	Unilateral
Rahimi and Moinfar ²	Case report	1	1	Acute anterior	Unilateral
van Kooij et al ³	Retrospective case series	8	8	Chronic intermediate	Bilateral
Present study	Cross-sectional	19	1	Acute anterior	Bilateral

of these 2 diseases. Based on our limited findings in this study, we do not recommend a screening eye examination for uveitis in patients with GA.

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Sustained Efficacy and Safety of Adalimumab in Psoriasis Treatment: A Retrospective Study of 49 Patients With and Without a History of TNF- α Antagonist Treatment

Of the 3 available tumor necrosis factor α (TNF- α) antagonists, infliximab and etanercept are approved for treatment of moderate to severe, chronic, plaque-type psoriasis.^{1,2} Although no standardized comparison trial exists, infliximab appears to be the most rapidly effective, but this initial efficacy is often eventually lost with the development of human antichimeric antibodies in 15% to 69% of patients.¹⁻³

Adalimumab, the third TNF- α antagonist, is currently in phase III trials for psoriasis treatment. As a fully human IgG1 monoclonal antibody, it is expected to have less immunogenicity and secondary antibody-mediated loss of efficacy.^{1,2} Despite clinical reports of antiadalimumab antibodies, impact on long-term clinical response is unclear.⁴

One recent study demonstrated adalimumab to be efficacious for psoriasis treatment of patients with no previous exposure to TNF antagonists.⁵ Since it is uncertain whether long-term response to adalimumab (≥ 12 months) can be sustained in patients for whom other anti-TNF therapy has failed to treat moderate to severe plaque psoriasis, we address this question retrospectively in 49 patients with and without prior use of TNF- α blockade.

Methods. This retrospective medical chart review includes 49 patients seen at the Baylor College of Medicine dermatology clinic. All patients had moderate to severe psoriasis based on the physician's global assessment (PGA) and had started treatment with adalimumab injections at least 12 months previously. All were screened for tuberculosis. Patients who had undergone prior therapy with biological agents were switched to adalimumab therapy only after they had experienced lack or loss of efficacy with their prior treatment. Patients switched from infliximab therapy had a washout period of at least 2 months, and those switched from etanercept or efalizumab had a washout period of at least 2 weeks.

Patients started treatment with adalimumab, 40 mg weekly, for 12 weeks. All were reassessed at 3 months. Patients whose disease was determined to be "clear" or "almost clear" by PGA had their doses decreased to once every 2 weeks, while the remainder continued weekly dosing for another 3 months. Patients were then reassessed at 3- to 6-month intervals, during which the dermatologist decreased the dosing frequency to once every 2 weeks or continued the weekly schedule, depending on individual response.

The clinical end point was defined as worsening PGA despite continuous adalimumab treatment or the occurrence of adverse events necessitating discontinuation of adalimumab treatment. Treatment failure was differentiated into primary lack of efficacy (no clinical response seen), secondary loss of efficacy (PGA degrades to lower than clear or almost clear after an initial response), and limited efficacy (clinical response seen, but patient never achieves clear or almost clear status).

Results. Thirty-nine patients had prior exposure to biological agents (80%). Thirty-seven had prior anti-TNF- α therapy (76%) (**Figure 1**). No complications were observed during transitions from prior biological agents.

Forty-three patients achieved clear to almost clear status at 3 months (88%), 3 at 6 months, and 1 at 9 months, while 2 continued to receive weekly dosing because they did not achieve clear to almost clear status. Two patients, whose dose had been decreased to 1 every 2 weeks at 3 months, resumed weekly dosing at 9 months. Sustained efficacy at 12 months was observed in 38 patients (78%). Of the 39 previously treated with biological agents, 31 experienced sustained efficacy with adalimumab (79%). Of the 37 who had been treated with TNF- α antagonists, 29 had a sustained response (78%). **Figure 2** sum-