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LETTERS

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Pathogenetic mechanisms, new drugs, and old problems in idiopathic recurrent pericarditis: comment on the article by Picco et al

To the Editor:

We read with interest the recent article by Picco et al in which the authors present case reports of 3 children with recurrent pericarditis who were treated, during flares, with the interleukin-1β (IL-1β) receptor antagonist anakinra, with immediate response (1). High-dose nonsteroidal antiinflammatory drugs (NSAIDs) are recommended as the mainstay of therapy for recurrent pericarditis (aspirin 2–4 gm/day, indomethacin 75–225 mg/day, ibuprofen 1,200–3,200 mg/day) (2,3). Although corticosteroids should be restricted in patients with pericarditis, when they are indicated, high doses have been recommended (2,3). However, we have demonstrated that the lower doses commonly used by rheumatologists are safer and more effective (4). The results of previous studies have demonstrated that colchicine can reduce the recurrence of pericarditis (5–7); in a randomized controlled study, colchicine had reduced recurrences by half at 18 months (7). Picco and colleagues showed that idiopathic recurrent pericarditis can be successfully treated with anakinra (1), and we agree that this agent can represent a novel therapeutic tool, although its role needs to be more clearly defined. Anakinra should probably be reserved for patients who do not tolerate other therapies, and it also could be considered an alternative to corticosteroids in patients whose disease does not respond to high-dose NSAIDs plus colchicine and in the rare instances when the required dosage and duration of steroid treatment are unacceptably high. For anakinra, however, Picco et al describe dependence similar to that observed in patients taking steroids, and NSAIDs and colchicine probably remain the best option for avoiding this dependence.

As discussed by Picco and colleagues, idiopathic recurrent pericarditis shares several features with autoinflammatory diseases, such as recurrent episodes of apparently unprovoked serosal inflammation, leukocytosis, and familial occurrence (the last of which our group has described as occurring in 10% of relatives of pericarditis patients [8]). We have also found that the most frequent mutations linked to familial Mediterranean fever were absent in these patients (6). Dysregulation of IL-1 may be very important in this condition, and we agree that recurrent "idiopathic" or "autoreactive" pericarditis (2) may indeed be an as-yet unidentified autoinflammatory disease in a subset of patients.

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1. Picco P, Brisca G, Traverso F, Loy A, Gattorno M, Martini A. Successful treatment of idiopathic recurrent pericarditis in children with interleukin-1β receptor antagonist (anakinra): an unrecognized autoinflammatory disease? Arthritis Rheum 2009;60:264–8.
2. Maisch B, Seferovic PM, Ristic AD, Erbel R, Rienmuller R, Adler Y, et al, and the Task Force on the Diagnosis and Management of Pericardial Diseases of the European Society of Cardiology. Guidelines on the diagnosis and management of pericardial diseases executive summary. Eur Heart J 2004;25:587–610.
3. Lange RA, Hillis LD. Acute pericarditis. N Engl J Med 2004;351:2195–202.
4. Imazio M, Brucato A, Cumetti D, Brambilla G, Demichelis B, Ferro S, et al. Corticosteroids for recurrent pericarditis: high versus low doses: a nonrandomized observation. Circulation 2008;118:667–71.
5. Adler Y, Finkelstein Y, Guindo J, Rodriguez de la Serna A, Shoenfeld Y, Bayes-Genis A, et al. Colchicine treatment for recurrent pericarditis: a decade of experience. Circulation 1998;97:2183–5.
6. Brucato A, Brambilla G, Adler Y, Spodick DH, Canesi B. Therapy for recurrent acute pericarditis: a rheumatological solution? Clin Exp Rheumatol 2006;24:45–50.
7. Imazio M, Bobbio M, Cecchi E, Demarie D, Pomari F, Moratti M, et al. Colchicine as first choice therapy for recurrent pericarditis. Arch Intern Med 2005;165:1987–91.
8. Brucato A, Brambilla G. Recurrent idiopathic pericarditis: familial occurrence [letter]. Int J Cardiol 2005;102:529.

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Reply

To the Editor:

We thank Dr. Brucato and colleagues for their comments and are glad that they agree with our suggestion that IL-1 inhibition could represent a therapeutic option in some patients with idiopathic recurrent pericarditis. In this respect, the recent availability of more potent IL-1 inhibitors is also of particular interest. The long-acting interleukin-1 inhibitor rilonacept (interleukin-1 Trap) has proven effective in the treatment of familial cold-induced autoinflammatory syndrome (1). Moreover, in a recent study on the efficacy of a monoclonal antibody against IL-1 (canakinumab) in children with systemic juvenile idiopathic arthritis, our group observed that, in patients who showed a notable response to the treatment, a single dose of the antibody induced a remission lasting for several weeks or months (2). Similar long-lasting remissions after a single injection of canakinumab have been observed in patients with autoinflammatory syndromes, such as cryopyrin-associated periodic syndrome (3). It could be hypothesized that patients with idiopathic recurrent pericardi-