

## Letter to the Editor

## Colchicine as a Possible Alternative Treatment for Chronic Recurrent Multifocal Osteomyelitis

Kronik Tekrarlayan Multifokal Osteomiyelit için Olası Alternatif bir Tedavi Olarak Kolşisin

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I read with interest the article by Cavalcanti et al.<sup>[1]</sup> in Turk J Rheumatol 2012;27:262-6 about a case of chronic recurrent multifocal osteomyelitis (CRMO) that was successfully treated with infliximab, an inhibitor of tumor necrosis factor-alpha (TNF- $\alpha$ ). Although I think that TNF- $\alpha$  inhibitors are good, new alternatives to keep in mind for the management of CRMO which is unresponsive to other agents, such as nonsteroidal anti-inflammatory drugs (NSAIDs) and bisphosphonates, treatment with colchicine rather than TNF- $\alpha$  blockers should be considered as a priority alternative for such resistant cases.

Colchicine is an ancient anti-inflammatory drug that inhibits the activation of neutrophils by causing the dissolution of microtubules and preventing the formation of the mitotic spindle,<sup>[2,3]</sup> thus relieving and preventing inflammatory attacks. It is mainly used for the treatment and prophylaxis of gout and familial Mediterranean fever (FMF),<sup>[2]</sup> but colchicine also provides therapeutic efficacy for several diseases, including psoriasis, necrotizing vasculitis, Behçet's syndrome, scleroderma, sarcoidosis, amyloidosis, and idiopathic pulmonary fibrosis.<sup>[3]</sup> However, the experience with colchicine in the treatment of CRMO is anecdotal in nature and not standardized.<sup>[4]</sup>

On the other hand, there are some similarities between FMF and CRMO. Both diseases are autoinflammatory, autosomal recessive immune disorders which are characterized by sterile inflammation and fever attacks with spontaneous remission.<sup>[1,5]</sup> In addition, Shimizu et al.<sup>[6]</sup> described a case of colchicine-responsive CRMO with Mediterranean fever (MEFV) gene mutations and implied that the MEFV gene might be associated with CRMO.

To summarize, since there is no standard specific treatment for CRMO and since CRMO has some similarities with FMF, I believe that colchicine should be considered as a priority alternative drug for the management of resistant patients before promptly starting a new and expensive treatment. However, clinical trials are required to evaluate this opinion.

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### Author's Reply

We read with interest the letter with the title "Colchicine as a Possible Alternative Treatment for Chronic Recurrent Multifocal Osteomyelitis" in which the author emphasized the importance of the use of colchicine, instead of anti-TNF $\alpha$ , as a therapeutic option in cases in which chronic recurrent osteomyelitis (CRMO) is resistant to NSAIDs. This most often occurs due to the high cost of that medication.<sup>[1]</sup> Not only does CRMO have similarities to familial Mediterranean fever (FMF), but it also presents with other periodic fever syndromes, such as tumor necrosis factor receptor-associated periodic syndrome (TRAPS), and hyperimmunoglobulinemia D with periodic fever syndrome (HIDS)<sup>[2]</sup> since all these are considered to be autoinflammatory diseases. However, FMF does not contain aseptic osteomyelitis in its clinical spectrum, which is the hallmark of CRMO. Shimizu et al.<sup>[3]</sup> first reported the heterozygous mutation of the Mediterranean fever (MEFV) gene in an adolescent with CRMO and only then began treatment with colchicine. The presence of this mutation is also highly prevalent in Henoch-Schönlein purpura (HSP),<sup>[4]</sup> Behçet's disease (BD),<sup>[5]</sup> ankylosing spondylitis (AS),<sup>[6]</sup> systemic onset juvenile idiopathic arthritis (SoJIA),<sup>[7]</sup> and even in fibromyalgia.<sup>[8]</sup> However, in cases involving these conditions, the clinical significance of this association is unknown, and studies with a larger sample size need to be conducted.

The option for aggressively treating our patient with anti-TNF $\alpha$  and methotrexate plus bisphosphonate was possible because of the involvement of multiple bone sites, especially in the spine, unlike the patient reported by Shimizu et al.<sup>[3]</sup> In a recent published review, we evaluated articles on autoinflammatory bone diseases,<sup>[9]</sup> and the authors proposed an algorithm for the treatment of CRMO and suggested that bisphosphonate and anti-TNF $\alpha$  be used as a second line of treatment in cases in which NSAIDs were unsuccessfully prescribed, especially when the spine is involved.

We emphasize that this was the first case of colchicine treatment in a patient with CRMO, and based on case series, anti-TNF $\alpha$  treatment is much

more prevalent. In addition, we want to stress the need for more randomized controlled trials to better define the most appropriate treatment for patients with CRMO.

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