

Dystrophic Calcinosis in Rheumatoid Arthritis

Jozélio Freire de Carvalho MD PhD

Department of Internal Medicine and Diagnostic Support, Medical School, Federal University of Bahia, Salvador, Bahia, Brazil

KEY WORDS: arthritis, autoimmunity, calcinosis, dystrophic calcinosis, rheumatoid arthritis

IMAJ 2021; 23: 393-394

A 73-year-old female who was diagnosed with rheumatoid arthritis in 2017 was treated with methotrexate 20 mg/week and sulfasalazine 2 grams/day. After 2 years, she noted redness and warmth on her left elbow. She denied local trauma and fever. Physical examination demonstrated hard areas on extensor face of her left elbow and the surrounding area and also on the ulnar border of left forearm [Figure 1]. Laboratory tests revealed normal cell blood count, calcium, phosphorus, vitamin D 36 ng/ml, parathyroid hormone, alkaline phosphatase, creatinine, C-reactive protein (2.46 mg/dl; nr < 1 mg/dl), and ESR 97 mm/first hour (nr < 10 mm/first hour). Antinuclear antibody, rheumatoid factor, and anti-CCP were negative.

An X-ray of the elbow and forearm showed several calcified masses in the subcutaneous tissue of the left elbow and forearm [Figure 2]. The patient was treated with an increased dose of methotrexate (25 mg/week), and colchicine (1 mg/day) was added. She observed a marked improvement of the arthritis and inflammatory process of her forearm, although the calcinosis persisted.

Calcinosis is the deposition of calcium in the subcutaneous tissue, and it is more often observed in chronic renal failure, hyperparathyroidism, or cancer [1]. In rheumatic diseases, this calcium abnormality is described mainly in scleroderma, dermatomyositis, lupus, and mixed connective tissue disease. To the best of my knowledge, there are only three previous cases that discuss dystrophic calcinosis in rheumatoid arthritis patients [1-3].

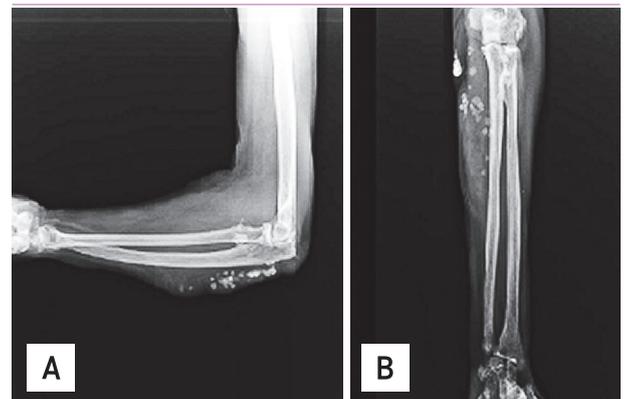
There are other cases of dystrophic calcinosis in rheumatoid arthritis; however, the patients had overlap with scleroderma [4]. The pathophysiological mechanism is yet unknown. In all three previous cases, calcinosis was present only years after rheumatoid arthritis diagnosis [1-3]. Regarding treatment, no specific drug is available yet. Surgical excision is rare and reserved for exceptional cases.

Figure 1. The left elbow and forearm showing multiple nodules on the subcutaneous tissue compatible with dystrophic calcinosis



Figure 2. X-ray of the left elbow and forearm showing multiple calcifications nodules compatible with dystrophic calcinosis around the left elbow area

[A] Lateral view and [B] anteroposterior view



Correspondence

Dr. J.F. de Carvalho

Dept. of Internal Medicine and Diagnostic Support, Medical School, Federal University of Bahia, Salvador, Bahia 41810-080, Brazil

Phone: (55-71) 9187-1169

email: jotafc@gmail.com

References

1. Harigane K, Mochida Y, Ishii K, Ono S, Mitsugi N, Saito T. Dystrophic calcinosis in a patient with rheumatoid arthritis. *Mod Rheumatol* 2011; 21: 85-8.
2. Hida T, Minami M, Kubo Y. Bilateral leg ulcers secondary to dystrophic calcinosis in a patient with rheumatoid arthritis. *J Med Invest* 2017; 64: 308-10.
3. Balin SJ, Wetter DA, Andersen LK, Davis MD. Calcinosis cutis occurring in association with autoimmune connective tissue disease: the Mayo Clinic experience with 78 patients, 1996-2009. *Arch Dermatol* 2012; 148: 455-62.
4. Nakamura T, Hirakawa K, Takaoka H, Iyama K. Dystrophic calcinosis with both a huge calcified mass in the cervical spine and calcification in the chest wall in a patient with rheumatoid overlap syndrome. *Clin Rheumatol* 2016; 35 (5): 1403-9.

**Wise sayings often fall on barren ground;
but a kind word is never thrown away.**

Sir Arthur Helps KCB HonDCL (1813-1875), English writer and dean of the Privy Council

Nothing is more dangerous than an idea when it's the only one you have.

Émile Chartier (1868-1951), French philosopher, journalist, and pacifist

Capsule

Kids armed with anti-coronavirus B cells

It remains unclear whether B cell repertoires against coronaviruses and other pathogens differ between adults and children and how important these distinctions are. **Yang** et al. analyzed blood samples from young children and adults, as well as tissues from deceased organ donors, characterizing the B cell receptor (BCR) repertoires specific to six common pathogens and two viruses that they had not seen before: Ebola virus and severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). Children had higher frequencies of B cells

with convergent BCR heavy chains against previously encountered pathogens and higher frequencies of class-switched convergent B cell clones against SARS-CoV-2 and related coronaviruses. These findings suggest that encounters with coronaviruses in early life may produce cross-reactive memory B cell populations that contribute to divergent COVID-19 susceptibilities.

Science 2021; 372: 738

Eitan Israeli

Erratum

In the May issue, in the article *Superficial Temporal Artery-Middle Cerebral Artery Microvascular Bypass: Its Role in Treatment of Patients with Moyamoya Disease, Cerebral Aneurysms, and Vascular Occlusive Disease* by Kahanov et al. (*IMAJ* 2021; 23: 306-11), the data in Table 1 on page 308 have been revised. The revised table has been updated and uploaded to the article in PubMed.