<https://doi.org/10.47660/CBR.2020.17333>

BULLOUS TOPHI IN GOUT: A RARE MANIFESTATION

Luiza Ferreira Ribeiro Tadeu^{1,*}, Letícia Neves Martins¹, Maria Luísa Toscano Malaquias Hybner¹, Maria Vitória Padua de Quintero¹, Iara Fernandes Pinto Abreu¹, Gustavo Lamego de Barros Costa¹

1.Santa Casa de Misericórdia de Belo Horizonte, Belo Horizonte (MG), Brazil.

*Corresponding author: luizafirt@gmail.com

BACKGROUND

Although chronic tophaceous gout is prevalent, tophi presenting as bulla have been rarely reported in literature.

CASE REPORT

A 87-year-old woman presented with non-painful hand and foot deformities. She denies pain at consultation, but reports previous episodes of major pain crises many years ago. Her medical history included arterial hypertension and advanced chronic kidney disease and she was chronically using hydrochlorothiazide, amlodipine and atenolol. Laboratory studies showed negative rheumatoid factor and anti-CCP, antinuclear antibody (ANA) 1:80 nuclear speckled pattern with negative specific antibodies profile, normochromic and normocytic anemia, creatinine of 3,08 mg/dL and uric acid of 10.9 mg/dL. Radiography of hands and feet with important punched out erosions, more pronounced on the feet (Fig. 1). Allopurinol was initiated with dose adjustment for renal dysfunction. In few days, she required hemodialysis and then presented mild arthritis in the right wrist, which improved with low dose of prednisone. A collection appeared on the medial side of the right hallux (Fig. 2), with a whitish/yellowish content and lumps, suggesting crystals, not painful, with mild perilesional inflammatory signs. Patient general state maintained preserved, without clinical or laboratory signs suggestive of infection. Analysis of the collection content showed the presence of monosodium urate, characterizing bullous tophi (Fig. 3). Patient consented for publication of the images.

Figure 1. Radiography of feet with punched out erosions.

Figure 2. Collection on the medial side of the right hallux.

Figure 3. Microscopy of the collection content showing monosodium urate crystals.

CONCLUSION

Microcrystalline arthritis is considered the most common inflammatory arthritis worldwide and consists in the deposition of monosodium urate crystals in the joints and periarticular tissues when the serum uric acid saturation point is exceeded. Another manifestation of chronic hyperuricemia is the deposition of these microcrystals on the skin, causing the formation of bubbles called bullous tophi. Such a manifestation is rare and was initially described in France in 1977, with two cases whose patients were using corticosteroids, leading to the hypothesis of its association with this medication until nowadays. Local trauma has also been described as a possible triggering factor. Besides assisting in diagnosis, aspiration of the bubble content can help remove crystals, which could serve as a niche for the formation of tophi, as the fluid in the bubble is slowly reabsorbed.