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Disseminated *Mycobacterium scrofulaceum* infection in a patient in treatment with golimumab☆

Infección diseminada por

Mycobacterium scrofulaceum (M. scrofulaceum) belongs to the nontuberculous mycobacteria group, with common presentation as cervical lymphadenopathy in infancy.[1] There are only a few cases of disseminated infection described to date, for which reason we present below the case of an immunocompromised adult.

A 38-year-old male is diagnosed with psoriatic arthropathy and had been being treated with golimumab for 2 years (he had previously received etanercept and adalimumab). He attended due to general malaise, headache, cough and a fever of 39° with no response to outpatient antibiotics. In the physical examination he presented with nuchal rigidity for which reason, in light of a normal brain computed tomography (CT), a lumbar puncture was conducted with cerebrospinal fluid compatible with lymphocytic meningitis, with 12 leukocytes/mm^3 (100% mononuclear), glucose 67 mg/dl, proteins 28 mg/dl and ADA 1.7 u/l. In ordinary culture, Lowenstein and multiple PCR of the cerebrospinal fluid were negative. In light of mediastinal widening on the x-ray, a CT was performed, with pulmonary micronodules, mediastinal and mesenteric lymphadenopathies, and splenomegaly, findings suggestive of miliary tuberculosis (Fig. 1). Following a bronchoscopy with biopsy of right paratracheal adenopathy empiric antituberculosis treatment was started (isoniazid, rifampicin, pyrazinamide and ethambutol) pending microbiological results. The node biopsy revealed necrotising epithelioid granulomas with presence of acid-fast bacilli, but in the culture material *M. Scrofulaceum* was isolated sensitive to all tested antibiotics, so antibiotics were adjusted to clarithromycin, rifampicin and ethambutol. This germ was not isolated in blood or cerebrospinal fluid.

The patient presented with good tolerance to treatment. A CT at 6 months demonstrated practical resolution of the lymphadenopathies and pulmonary micronodules, and after completing 12 months of treatment the patient is currently asymptomatic.

Atypical or nontuberculous mycobacteria are frequently found in the environment, especially in water. They are usually transmitted by inhalation or direct inoculation, they do not spread from person to person and they do not usually cause disease in immunocompetent subjects.[2] More than 150 species have been described, and within these *M. scrofulaceum* represents just 2.2% of these infections. Their typical form of presentation is cervical lymphadenitis or scrofula in infancy, followed by slowly growing cavitary pneumonia, more common in the elderly and those with chronic lung disease.[1] Disseminated *M. scrofulaceum*infection is exceptional. Since the first report in 1971[3] we have found only 10 cases described in the literature, 6 of these in adults: one patient had an HIV infection,[4] 2 leukaemia,[3,5] in another the immunological situation was unknown[6] and the other 2 did not have known immunodeficiency, except mild lymphopaenia in one of them.[1,7]

Our patient was also immunosuppressed due to chronic treatment with golimumab. This is an anti-tumour necrosis factor (anti-TNF) monoclonal antibody, which acts by decreasing the immune response through blocking this proinflammatory cytokine. It is employed in diseases such as rheumatoid arthritis, psoriatic arthritis or ankylosing spondylitis. However, due to its action on the immune system, it can increase the risk of bacterial infections, infections by mycobacteria (mainly tuberculosis but also atypical), or opportunistic/invasive fungal infections.[8] As with other anti-TNFs cases of reactivation of latent tuberculosis have been described with the use of golimumab,[9] so it is essential to rule out this possibility and treat it if necessary, before starting treatment with this drug. In our patient, latent tuberculosis infection was ruled out by a Mantoux test (0 mm) before starting treatment. The risk of infection by nontuberculous mycobacteria is also heightened in patients treated with anti-TNF, most often by *M. avium complex*.[10] However, we have not found any described cases of infection by *M. scrofulaceum* in the literature to date associated with the use of golimumab, nor with other anti-TNFs.

Regarding treatment, just as with TB, discontinuation of the anti-TNF drug is recommended while treating the infection. Regarding antibiotic treatment, the regimen to be followed is not protocolised and neither is its duration. Given that *M. scrofulaceum* demonstrates higher rates of resistance that other mycobacteria[1] combination therapy guided by antibiogram is recommended for at least a year,

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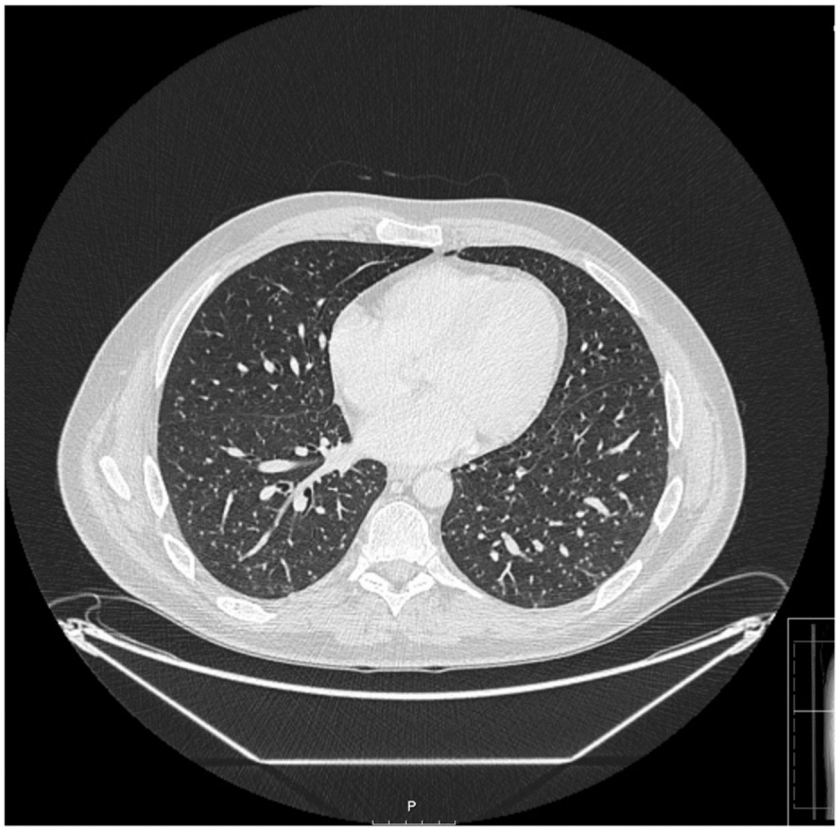

Fig. 1. TAC cross-section where multiple pulmonary micronodules can be observed.

individualised according to the immunocompetence level of the patient.

Conflict of interest

There are no conflicts of interest and this paper has not been funded by an institution.

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