Primary Cavitary Sarcoidosis, an Extremely Rare Form of Presentation☆

Sarcoidosis cavitaria primaria, una forma extremadamente rara de presentación

To the Editor:

Sarcoidosis is a multisystem disease that generally affects young and middle-aged adults[3] and is characterized by the existence of caseifying granulomas.[1] The lung is the most frequently affected organ and is associated with most cases of morbidity and mortality.[2] The most typical radiological findings are bilateral hilar lymphadenopathies, with or without right paratracheal lymphadenopathies, followed by a pulmonary interstitial pattern.[1] Cavitation is an unusual finding in pulmonary sarcoidosis.[2,3]

We report the case of a 38-year-old Caucasian man, with a history of bronchial asthma in childhood, who had given up smoking 4 months previously. He consulted due to a 2-month history of morning cough, triggered by changes in environment and exercise, with mucous expectoration and occasional vomiting. Lung auscultation and lung function tests, including a walk test, were normal.

Chest X-ray revealed a bilateral diffuse interstitial pattern with no apicobasal gradient, consisting of micronodules and at least 2 cavitary lesions in the right lung base (Fig. 1A). Chest high-resolution computed tomography (HRCT) confirmed the existence of a micronodular interstitial pattern with perilymphatic distribution, in addition to multiple nodules, many of which were cavitary with a thick, smooth wall, with no signs of malignancy. These nodules were more numerous in the upper fields and larger in the right lung base, and bilateral hilar lymphadenopathies were observed (Fig. 1B and C). On the basis of the radiological findings, the differential diagnoses proposed were Langerhans cell histiocytosis, sarcoidosis, and, though less likely due to the clinical setting, tuberculous or fungal infection. Bronchial aspirate culture was negative for mycobacteria and fungi. A transbronchial biopsy was performed, and the pathology study of the samples obtained from the right upper lobe and right lower lobe showed non-necrotizing granulomatous pneumonitis, consistent with sarcoidosis (Fig. 1D).

Cavitary lung lesions are an unusual finding in sarcoidosis. Although they are found in 10% of patients at an advanced stage, along with signs of fibrosis with distortion of the lung architecture and traction bronchiectasis, they are encountered as a form of presentation in less than 0.8% of cases,[1] generally in young individuals with acinar or nodular disease.[1] This, then, is a diagnostic dilemma that may be underdiagnosed,[2] since it requires the right clinical correlation and histologic confirmation.[3] The clinical course is less symptomatic than that of other cavitary diseases.[2] For diagnosis, the bacterial and fungal cultures must be negative, there must be no pleural effusion, and radiologically similar lesions such as bullae or

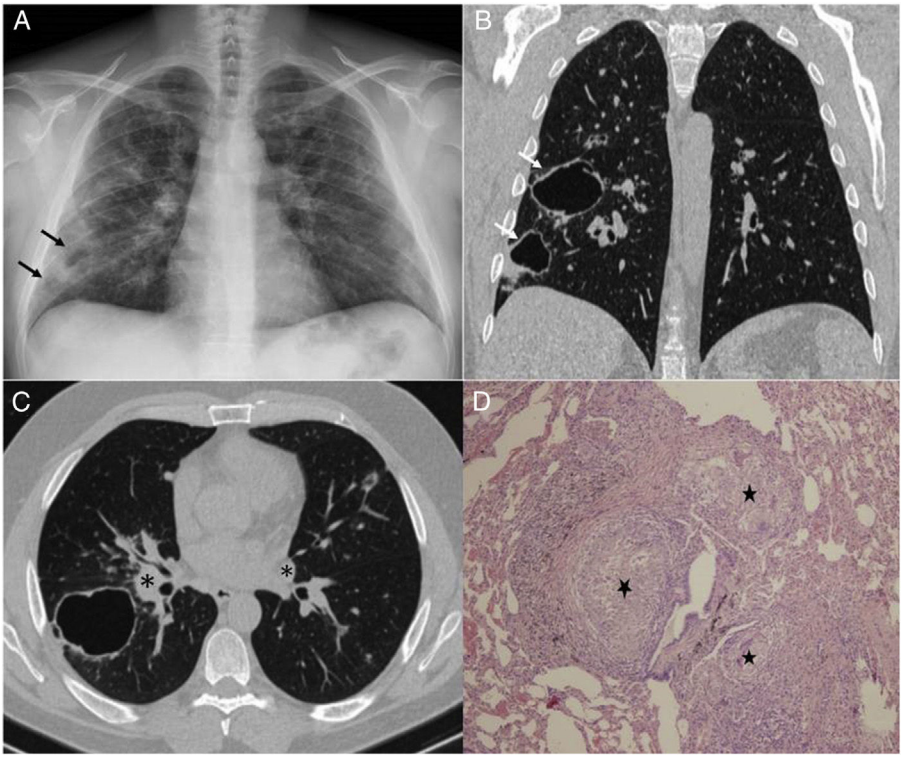

Figure 1. (A) Standard chest X-ray: bilateral diffuse interstitial pattern, consisting of patchy images of increased density, predominantly in the right lung field (arrows). Chest high-resolution computed tomography (HRCT). (B) Coronal reconstruction. (C) Axial image, both with lung window: interstitial micronodular pattern with perilymphatic distribution, cavitary nodules with a thick, smooth wall (arrows) and bilateral hilar lymphadenopathies (asterisks). (D) Photomicrograph of transbronchial biopsy: lung parenchyma with numerous non-necrotizing granulomas (stars) with peribronchial distribution, consisting of epithelioid cells and multinucleated giant cells (hematoxylin-eosin, ×40).

☆ Please cite this article as: Guerra ABG, Pedreira MRL, Sánchez PC, Velasco PS. Sarcoidosis cavitaria primaria, una forma extremadamente rara de presentación. Arch Bronconeumol. 2018;54:483–484.

bronchiectasis must be ruled out.[2] Histologically, the cavities consist of an area of central necrosis coated with a wall of converging conglomerated sarcoid granulomas.[1,2] The cavities may be present from onset, or develop months or years later. They can remain stable for a time, but they can also disappear and new cavities can form.[3]

References

1. Criado E, Sánchez M, Ramírez J, Arguis P, de Caralt TM, Perea RJ, et al. Pulmonary sarcoidosis: typical and atypical manifestations at high-resolution CT with pathologic correlation. Radiographics. 2010;30:1567–86.
2. Özseker ZF, Yilmaz A, BayramgÜrler B, GÜneylioglu D. Cavitary sarcoidosis: analysis of two cases. Respirology. 2002;7:289–91.
3. Hours S, Nunes H, Kambouchner M, Uzunhan Y, Brauner MW, Valeyre D, et al. Pulmonary cavitary sarcoidosis: clinico-radiologic characteristics and natural history of a rare form of sarcoidosis. Medicine (Baltimore). 2008;87:142–51.

Ana Belén Gil Guerra,* María Rosa López Pedreira, Pilar Cartón Sánchez, Pablo Santos Velasco

Servicio de Radiodiagnóstico, Hospital Clínico Universitario de Valladolid, Valladolid, Spain

* Corresponding author.
E-mail address: anagil.guerra@gmail.com (A.B.G. Guerra).

1579-2129/

Treatment of Latent Tuberculosis Infection in a Tuberculosis Clinic☆

Tratamiento de la infección tuberculosa latente en una unidad clínica de tuberculosis

To the Editor:

Tuberculosis (TB) is still a major worldwide public health problem. Individuals with latent tuberculosis infection (LTI) are at risk of developing the disease, and this risk is associated with their immune status. The development of TB can be avoided by the use of preventive treatment - treatment of latent tuberculosis infection or TLTI.[1] The effectiveness of TLTI depends on the efficacy of the regimens used[2] and on compliance with these regimens.[3]

We conducted an observational retrospective study to evaluate TLTI compliance and factors associated with dropout.

Subjects with a diagnosis of LTI who began TLTI in the Unidad Clínica de Tuberculosis Vall d'Hebron-Drassanes between January 2011 and December 2016 were studied. The diagnosis of LTI was established on the basis of a positive tuberculin test and/or IGRA with a normal chest X-ray. The TLTI regimen was indicated according to the guidelines of the Spanish Society of Pulmonology and Thoracic Surgery.[4]

All cases were followed up with monthly clinical and laboratory evaluations, and whenever the patient presented intolerance. Adherence was assessed through interview and determination of isoniazid metabolites in urine,[5] and compliance was defined as administration of more than 80% of the prescribed doses.

In total, 1113 patients with a mean age of 29 years were included consecutively; 713 were men (64%). A total of 793 (71%) were immigrants from more than 50 countries (Table 1). Seventy percent of African patients were from the Maghreb countries (primarily Morocco), and the rest were sub-Saharan. In total, 71.5% of Asians were from the Indian subcontinent, the majority from Pakistan. In the group of Latin American patients, most were from Bolivia (23%), Ecuador (21%), Peru (14%), Dominican Republic (11%), and Colombia (9%). Fifty-five percent of patients from eastern Europe were Romanian.

TLTI was indicated as a result of contact tracing in 675 (61%) individuals, and screening of the at-risk population in 438 (39%). The TLTI regimen of choice was the combination of isoniazid and rifampicin for 3 months, which was indicated in 1017 patients (91%). The 6-month isoniazid regimen was reserved for patients in whom rifampicin was contraindicated to avoid interactions with their regular medication. Monotherapy with rifampin for 4 months was used in patients with TLTI indicated due to contact with patients with active TB known to be isoniazid-resistant, and as a rescue drug when isoniazid was withdrawn for liver toxicity.

In total, 920 patients (83%) completed treatment and 150 (13%) dropped out. Adverse effects (AE) were recorded in 274 patients (24%), the most common being raised liver enzymes (106; 10%). TLTI was withdrawn in only 43 patients who reported AE (4%). In 42 (4%) cases, the initially indicated regimen was switched; of these, 98% completed the TLTI.

Variables related to dropout in the logistic regression analysis were: diagnosis by screening of at-risk population (OR 2.06; 95% CI 1.45–2.93), male sex (OR 1.79; 95% CI 1.20–2.65), age less than 35 years (OR 1.76; 95% CI 1.14–2.73), not living with family (OR 3.2; 95% CI 2.19–4.80), low educational level (OR 5.11; 95% CI 1.83–14.13), unemployment (OR 3.09; 95% CI 2.04–4.68), smoking (OR 1.62; 95% CI 1.12–2.35), alcoholism (OR 1.96; 95% CI 1.26–3.06), and immigration (OR 3.2; 95% CI 1.92–5.35). Among the subgroup of immigrants, worse compliance was observed in those who had resided for less than 2 years in Spain (OR 1.86; 95% CI 1.27–2.72).

We believe that 3-month course of combined isoniazid and rifampicin usually used in our hospital is the main factor contributing to the TLTI completion rates that we observed. The use of short regimens based on rifampicin alone or in combination with other drugs has been shown to improve TLTI completion rates compared to long regimens with treatments of 6–9 months, and this is considered a fundamental strategy for improving adherence, while maintaining the same efficacy as the traditional regimens.[3,6] In a clinical trial conducted by our group, the use of a combination of isoniazid and rifampicin during 3 months showed a rate of compliance (72%) significantly higher than the 6-month isoniazid regimen (52%), with no differences in AE incidence, liver toxicity or efficacy.[7]

The diagnosis of LTI also influences subsequent compliance with the TLTI. Patients who are prescribed TLTI as the result of contact tracing adhere better to treatment (86%) than those in whom TLTI was prescribed as a result of at-risk population screening (78%). A recently published review that collected TLTI completion rates from 13 prospective studies shows that compliance among recent contacts of active TB cases was 53%–82% compared with 25%–71% of individuals detected in screening programs. This behavior was attributed to the lack of perception of risk in the latter group.[8]

☆ Please cite this article as: Jiménez-Fuentes MÁ, Augé CM, Peiró JS, Souza-Galvão MLd. Tratamiento de la infección tuberculosa latente en una unidad clínica de tuberculosis. Arch Bronconeumol. 2018;54:484–486.