Rare case of pulmonary sarcoidosis with cystic bronchiectasis

Keishi Sugino,1 Atsuko Kurosaki,2 Sakae Homma,3 Kazuma Kishi4

DESCRIPTION

A previously well 27-year-old man presented with a 5-day history of photophobia. Chest high-resolution CT (HRCT) scan on admission showed bilateral hilar lymph node enlargement and nodules with irregular boundaries, encircled by a rim of numerous tiny satellite nodules (sarcoid galaxy sign) predominantly in the bilateral upper lobes (figure 1A). He was diagnosed as systemic sarcoidosis associated with uveitis and lung involvement. Therefore, he was received 1 g/day of intravenous methylprednisolone for 3 days, followed by oral prednisolone (PSL) at 40 mg/day. After these initial corticosteroid treatments, the chest CT abnormalities immediately resolved with improvements of the photophobia. However, he stopped taking oral PSL on his own judgement. After 3 years, he had a dry cough, dyspnoea on exertion and general fatigue. Chest HRCT revealed marked bronchiectasis,

Learning points

- Cystic bronchiectasis are rare in non-fibrotic pulmonary sarcoidosis.
- The check-valve mechanism due to stenosis of bronchi with peribronchial fibrosis or accumulation of granulomas may result in peripheral cyst formation in pulmonary sarcoidosis.
subsequent 25 months, a part of thin-walled cystic bronchiectasis remains unchanged (figure 1E).

Patients with extensive fibrotic pulmonary sarcoidosis often can develop honeycomb-like pattern or clustered cysts.\(^1\)\(^2\) Recently, Sawahata et al speculated that honeycomb-like pattern may result from traction bronchiectasis in patients with fibrotic pulmonary sarcoidosis.\(^3\)\(^4\) However, in this case, there has been seen not extensive fibrosis but numerous small nodules with cystic bronchiectasis. The check-valve mechanism due to stenosis of bronchi with peribronchial fibrosis or accumulation of granulomas may result in peripheral cyst formation. In fact, these cysts were connected with distal bronchiectasis and resolved with PSL therapy. On the other hand, anti-granulomatous therapy may prevent a possible sarcoidosis antigen from being cleared, resulting in relapse when the anti-granulomatous therapy is withdrawn.\(^5\) Indeed, Gottlieb et al reported that patients with sarcoidosis receiving corticosteroid therapy had a higher rate of relapse than those who are observed without treatments.\(^6\) Therefore, we speculate that cystic bronchiectasis formation might not develop over time, if this patient did not have treatment with a high dose of corticosteroid at the initial visit.

Contributors All the authors have read the manuscript, had acknowledging responsibility for the work and approved this submission. KS performed patient data collection, KS and AK involved in data analysis and KS, AK, SH and KK contributed in manuscript preparation and review.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

REFERENCES