indicate effectiveness in our patient and justify future randomised clinical trials.

The pathogenesis of ABPA remains complex and confusing. In all patients, very high total serum IgE levels and high levels of IgE anti-*Aspergillus* antibodies are seen. There seem to be quantitative and perhaps qualitative differences in the B cell IgE antibody responses between those with ABPA and those without ABPA.[3] In ABPA, there are also increased amounts of IgG and IgA anti-*Aspergillus* antibodies, which reflect the balance between T helper cells types 2 and 1 in the response to *Aspergillus* antigens in these patients.[4] To date, it has not been clear whether extreme amounts of IgE play a role in the pathogenesis of ABPA or whether it is only an epiphenomenon. The timing of the effects after administration of omalizumab in our patient suggests that IgE antibody might have an important role in the signs of airflow obstruction in ABPA. The serum levels of free IgE are reduced in a dose-dependent manner within 2 h of subcutaneous administration of omalizumab. The half-life of the drug in serum is about 22 days.[5] In our patient, clinical improvement was observed within several hours, lasting for 2–3 weeks.

The diagnosis of ABPA in cystic fibrosis is difficult because many of the diagnostic criteria overlap with common manifestations of cystic fibrosis. The diagnosis is based on the presence of five or more essential criteria as proposed by the international consensus committees,[1] and specific tests are lacking. When our observation is confirmed in other patients, the rapid and clear improvement of clinical signs and lung function after a single dose of omalizumab might be used as a helpful diagnostic test for ABPA.

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LUNG ALERT

Inducible bronchus-associated lymphoid tissue and the pathogenesis of rheumatoid lung

▲ Rangel-Moreno J, Hartson L, Navarro C, *et al.* Inducible bronchus-associated lymphoid tissue (iBALT) in patients with pulmonary complications of rheumatoid arthritis. *J Clin Invest* 2006;**116**:3183–94.

Bronchus-associated lymphoid tissue (BALT) comprises submucosal lymphoid cells analogous to Peyer's patches but located in association with large airways. It is generally not found in normal mouse or human lung tissue. Pulmonary infection or inflammation in mice leads to the development of lymphoid follicles that are not restricted to the upper airways, termed inducible BALT (iBALT). In this study the authors examined lung biopsies from patients with a variety of interstitial diseases including idiopathic pulmonary fibrosis, hypersensitivity pneumonitis and lung disease in association with rheumatoid arthritis (RA) and Sjogren's syndrome (SS). Although small amounts of lymphoid aggregates were found in the non-autoimmune conditions, samples from the patients with RA and SS had more and larger lymphoid areas.

The authors then proceeded to investigate the potential roles and causes of this well-organised iBALT. First, venules and lymphatic vessels were consistently found within the follicles and it was felt they were likely to facilitate entry and exit of immune cells. Second, levels of certain cytokines involved in lymphoid organogenesis and T_H2-driven pathology, as well as levels of the autoantibody anti-cyclic citrullinated peptide (anti-CCP) in BAL fluid, correlated well with the amount of iBALT. Third, dense areas of collagen deposition and myofibroblast activity around the follicles were seen in the patients with highly organised iBALT.

These findings suggest that iBALT may have a significant role in the pathogenesis of interstitial lung disease seen in association with connective tissue disorders. Further understanding of the mechanisms involved could be used to develop novel treatments.

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