Letters to the Editors

Sjögren's syndrome and pulmonary alveolar proteinosis co-existence

Sirs,

Sjögren's syndrome (SS) is a systemic autoimmune disease characterised by lymphocytic infiltration of the exocrine glands and by a wide number of systemic manifestations (1). SS is classified as primary SS (pSS) when alone or as secondary SS (sSS) when accompanied by another systemic autoimmune disease (2). The pulmonary manifestations of SS are polymorphic. It can affect all compartments of the lung, including the lung parenchyma, airways, vascular structures, and pleura (3).

Pulmonary alveolar proteinosis (PAP) is a syndrome characterised by surfactant accumulation in alveoli and resulting in hypoxemic respiratory failure/insufficiency. According to its aetiology, three different clinical forms have been defined as primary, secondary and congenital (4).

The high aetiological diversity in PAP and the increased levels of lipid (5) and protein (6), which are the subunits of surfactant, suggest that its aetiopathogenesis may be variable. In the aetiology of secondary PAP, haematological disorders, infectious diseases, autoimmune diseases, post-organ transplantation and non-haematological malignancies have been identified. In a study examining patients with secondary PAP, autoimmune diseases Behçet's disease, Wegener's granulomatosis and microscopic polyangiitis were reported (7). Case studies and literature review involving 164 patients with secondary PAP using the Pub-Med database showed the rate of autoimmune disease to be 6.7% (8).

There are several case reports of the coexistence of PAP and SS (8-10). A 61-yearold female patient who presented with chest pain that had persisted for the past two years had peripheral, diffuse, subpleural ground-glass opacity on high-resolution computed tomography (HRCT) (Fig. 1). SS was diagnosed by salivary gland biopsy and PAP was diagnosed by open lung biopsy. Diseases that cause radiological ground glass opacity in patients with pSS, cellular non-specific interstitial pneumonia, lymphocytic interstitial pneumonia, lymphoma, drug-induced lung disease, infection, hypersensitivity pneumonitis (11). We think that PAP disease should also be kept in mind, although it is rare, when ground glass opacity is found in the thoracic radiological imaging of PSS patients.



Fig. 1. High-resolution computed tomography.

- B. GUNDOGUS¹, MD
- T. YILDIZ¹, MD
- M. Agca¹, MD
- A. Erdagi², MD
- H. YILMAZ³, MD

¹Department of Pulmonology, ²Department of Pathology, ³Department of Thoracic Surgery, University of Health Sciences, Sureyyapasa Chest and Thoracic Surgery Hospital, İstanbul, Turkey. Please address correspondence to:

Baran Gundogus, Department of Pulmonary Disease, Sureyyapasa Chest Disease and Thoracic Surgery, Training and Research Hospital, Health Sciences University Sureyyapasa Gogus Hastaliklari Hastanesi/Maltepe, 34844 Istanbul, Turkey.

E-mail: bgundogus@gmail.com

© Copyright CLINICAL AND EXPERIMENTAL RHEUMATOLOGY 2021.

References

- 1. FOX RI: Sjögren's Syndrome. Lancet 2005; 366: 321-31
- 2. THORNE I, SUTCLIFFE N: Sjögren's syndrome. Br J Hosp Med 2017; 78: 438-42.
- 3. LUPPI F, SEBASTIANI M, SVERZELLATI N, CAVAZZA A, SALVARANI C, MANFREDI A: Lung complications of Sjögren syndrome. Eur Respir Rev 2020; 29: 200021
- 4. TRAPNELL BC, MCCARTHY C: The alveolar lipidome in pulmonary alveolar proteinosis. a new target for therapeutic development? Am J Respir Crit Care Med 2019; 200: 800-02.

- 5. GRIESE M. BONELLA F. COSTABEL U. BLIC DB. TRAN NB, LIEBISCH G: Quantitative lipidomics in pulmonary alveolar proteinosis. Am J Respir Crit Care Med 2019: 200: 881-7.
- 6. DOYLE IR, DAVIDSON KG, BARR HA, NICHOLAS TE, PAYNE K, PFITZNER J: Quantity and structure of surfactant proteins vary among patients with alveolar proteinosis. Am J Respir Crit Care Med 1998: 157: 658-64.
- 7. ISHII H, TAZAWA R, KANEKO C et al.: Clinical features of secondary pulmonary alveolar proteinosis: pre-mortem cases in Japan. Eur Respir J 2011; 37: 465-8
- 8. ZHANG D, TIAN X, FENG R et al.: Secondary pulmonary alveolar proteinosis: a single-center retrospective study (a case series and literature review). BMC Pulm Med 2018; 18: 15.
- 9. JIWA N, WASSERMAN E, KANAAN J: Pulmonary alveolar proteinosis in a patient with Sjögren syndrome. Chest 2020; 158: A1566
- 10. PARK E, KIM HR, KIM HJ, LEE SH: Pulmonary alveolar proteinosis as an unusual pattern of lung involvement in Sjögren syndrome. Rheumatol Int 2012; 32: 2945-48
- 11. LUPPI F, SEBASTIANI M, SILVA M et al.: Interstitial lung disease in Sjögren's syndrome: a clinical review. Clin Exp Rheumatol 2020; 38 (Suppl. 126): S291-300