

[ PICTURES IN CLINICAL MEDICINE ]

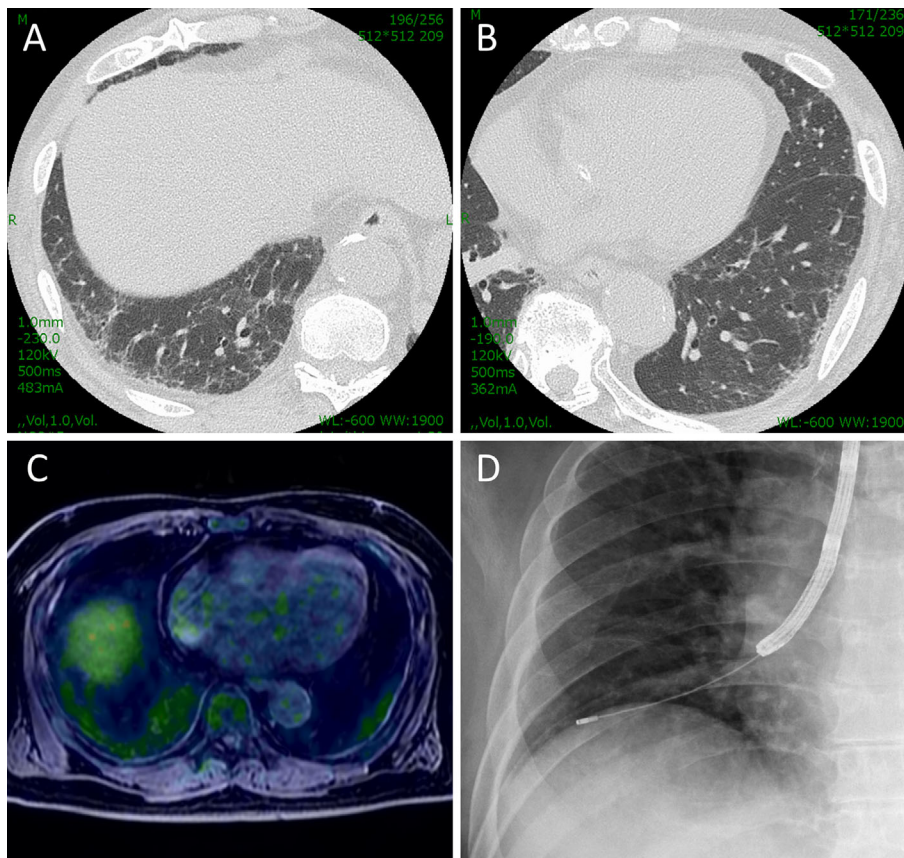
## Intravascular Lymphoma Diagnosed by “Hot Lung” Sign

Keigo Uchimura, Tatsuya Imabayashi, Yuji Matsumoto and Takaaki Tsuchida

**Key words:** intravascular lymphoma, positron emission tomography, bronchoscopy, cryobiopsy, lung

(Intern Med 61: 761-762, 2022)

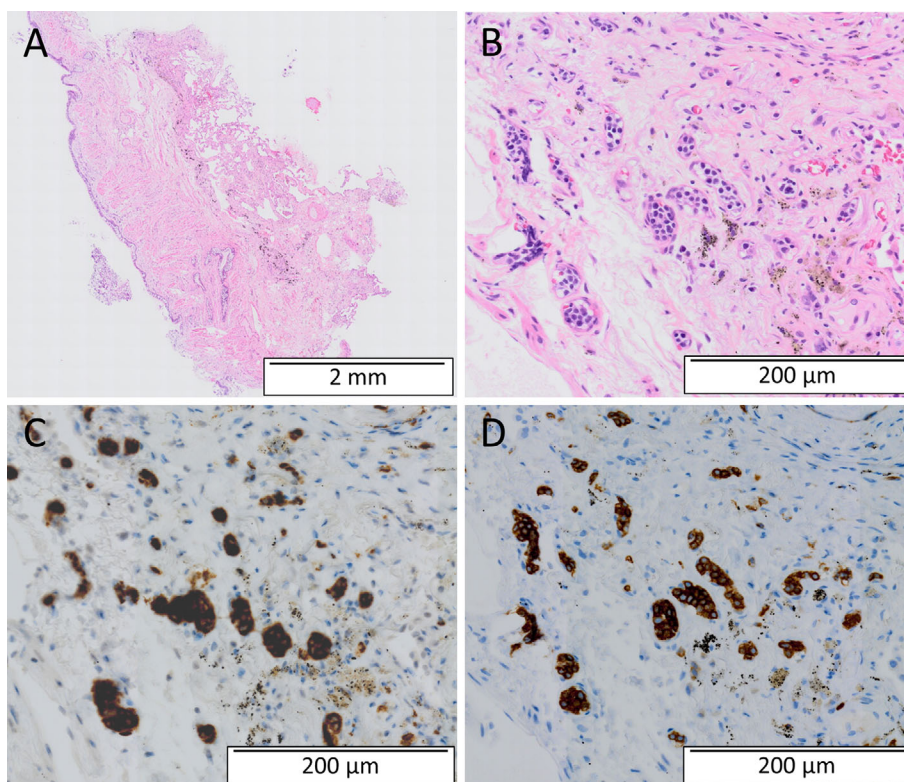
(DOI: 10.2169/internalmedicine.8087-21)



**Picture 1.**

A 73-year-old man visited us with a complaint of weight loss without other symptoms. Chest computed tomography (CT) showed slight reticular shadows on both lungs (Picture 1A, B) with an increased maximum standardized uptake value of 3.3 on positron emission tomography (PET)-magnetic resonance imaging (MRI), which is known as the hot lung sign (1) (Picture 1C). A blood examination showed elevated soluble interleukin-2 receptors (8,622 U/mL) without findings of lymphoma on whole-body CT, a bone marrow biopsy, spinal MRI, and a random skin biopsy. A trans-

bronchial cryobiopsy performed under fluoroscopic guidance (Picture 1D) revealed atypical lymphocytes (Picture 2A, B) positive for CD20 (Picture 2C) and CD79a (Picture 2D) filling the vessels. The patient was diagnosed with intravascular large B-cell lymphoma (IVLBCL), which is challenging to diagnose and often requires surgery or an autopsy. “Hot lung” sign is defined as an increased diffuse uptake in both lungs, extending from the base of the lungs on PET, despite normal or slightly abnormal CT findings (1). A cryobiopsy was recently reported to provide sufficient specimens for a



**Picture 2.**

diagnosis of IVLBCL (2). Performing both PET and a cryobiopsy may enable the early diagnosis of pulmonary IVLBCL.

**The authors state that they have no Conflict of Interest (COI).**

#### **Financial Support**

This work was supported by JSPS KAKENHI Grant Number JP19K16966.

#### **References**

1. Şahin Ö, Kaya B, Serdengeçti M, Çizmeçioğlu HA, Şenal AE. “Hot lung” sign in pulmonary intravascular large B-cell lymphoma on 18F-FDG PET/CT. *Clin Nucl Med* **45**: e211-e212, 2020.
2. Poletti V, Gurioli C, Piciocchi S, et al. Intravascular large B cell lymphoma presenting in the lung: the diagnostic value of trans-bronchial cryobiopsy. *Sarcoidosis Vasc Diffuse Lung Dis* **31**: 354-358, 2014.

The Internal Medicine is an Open Access journal distributed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view the details of this license, please visit (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).