

[PICTURES IN CLINICAL MEDICINE]

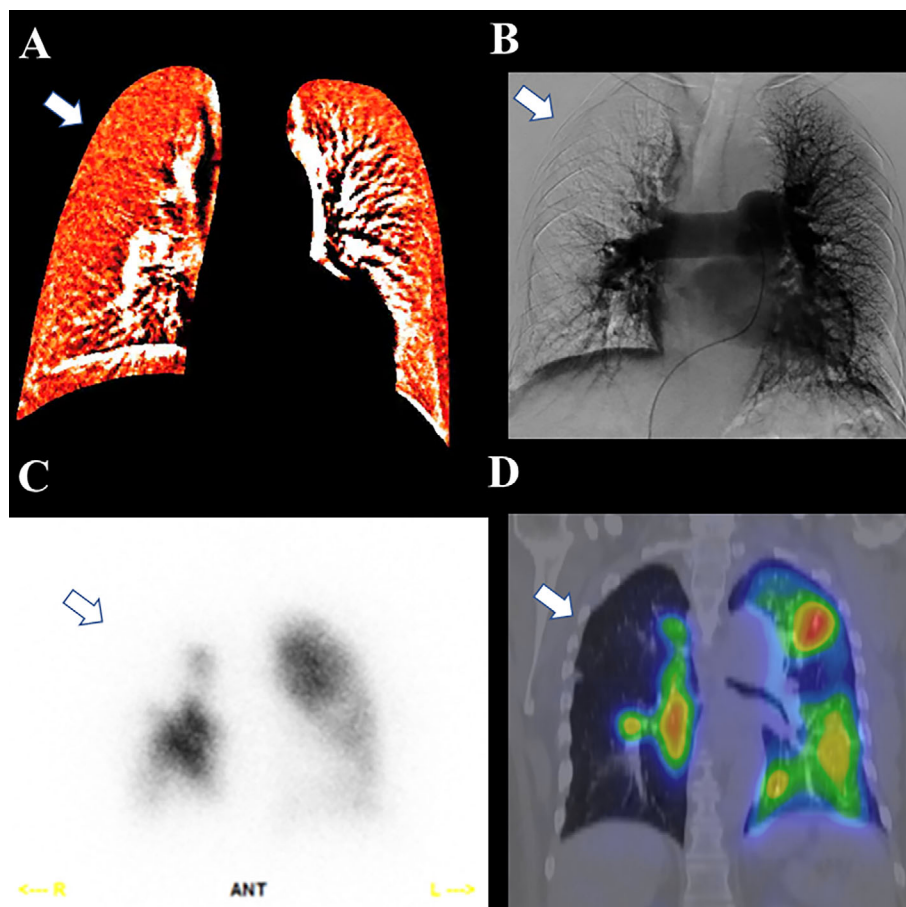
Pulmonary Circulation with Chronic Thromboembolic Pulmonary Hypertension

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Key words: pulmonary thromboembolism, pulmonary circulation

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Picture.

A 70-year-old woman with suspected chronic thromboembolic pulmonary hypertension (CTEPH) was admitted with dyspnea that had persisted for 1-year, high right ventricular pressure on echocardiography (right ventricular systolic pressure: 75 mmHg), and normal D-dimer levels (1.5 $\mu\text{g}/\text{mL}$). Pre-pulmonary angiography, we converted the X-ray

fluoroscopic image to a Radwisp™. The Radwisp™ analysis (fluoroscopic video analysis workstation using cineradiography based on X-ray technology) enabled visualization of the pulmonary circulation without contrast media. In the Radwisp™, the white-colored area indicated more dilated blood vessels, suggesting greater blood flow (1) and the right

peripheral-lung field exhibited a red color without any white color, indicating no blood flow (A). Pulmonary angiography (B), revealed many occluded branches of the right pulmonary artery, similar to the Radwisp™, pulmonary blood flow scintigraphy (C), and lung perfusion imaging (D) findings. Her pulmonary hypertension did not improve with 6-month anticoagulation therapy. Radwisp™ has a potential application as a minimally invasive diagnostic modality for CTEPH, especially for cases with contrast medium limitations.

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

Reference

1. Fukamachi, D, Okumura Y. A novel diagnostic method for acute pulmonary thromboembolisms: an X-ray fluoroscopic video analysis workstation. *JACC Case Rep* 3: 941-943, 2021.

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