



Pulmonary veno-occlusive disease with vanished pulmonary consolidation

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Associate Editor: Belinda Miller

Key message

Pulmonary veno-occlusive disease (PVOD) is an extremely rare cause of pulmonary hypertension. Previously reported computed tomography (CT) findings of PVOD included centrilobular ground-glass opacities, a mosaic pattern, and septal lines; however, chest CT revealing pulmonary consolidation disappearance with repositioning has not been reported.

KEYWORDS

pulmonary hypertension, pulmonary veno-occlusive disease, vanished pulmonary consolidation

CLINICAL IMAGE

A 79-year-old Japanese female patient with Sjögren syndrome, progressive systemic sclerosis, and pulmonary hypertension (PH) was hospitalized for dyspnea. Right heart catheterization showed a high mean pulmonary artery pressure (40 mmHg) and normal pulmonary artery wedge pressure (6 mmHg). Pulmonary ventilation-perfusion scintigraphy showed no

mismatch. Supine position chest computed tomography (CT) revealed bilateral diffuse ground-glass opacities (GGO) and consolidation in the left lower lobe, whereas prone position CT performed immediately after the supine CT showed the disappearance of the consolidation (Figure 1). She passed away 3 months later due to PH, and autopsy findings (Figure 2) revealed intimal fibrous thickening, luminal narrowing, and partially occluded venules to

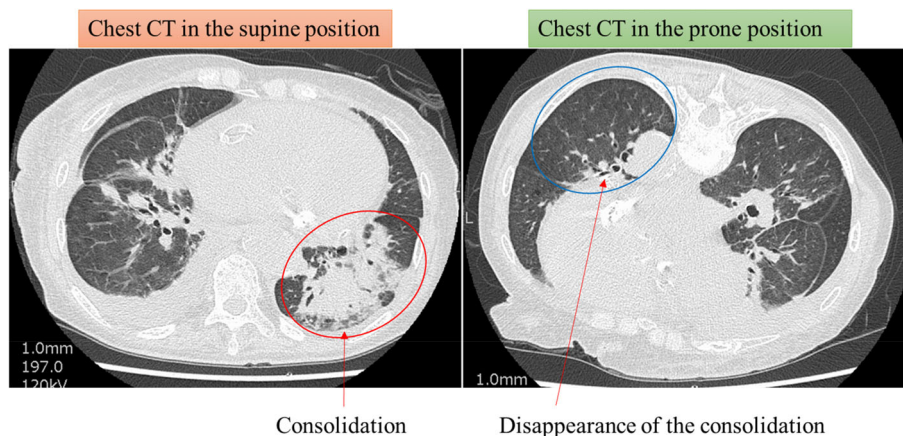


FIGURE 1 Supine position chest CT shows bilateral diffuse ground-glass opacities and consolidation in the left lower lobe (red circle), whereas the prone position CT shows disappearance of the consolidation (blue circle). CT, computed tomography.

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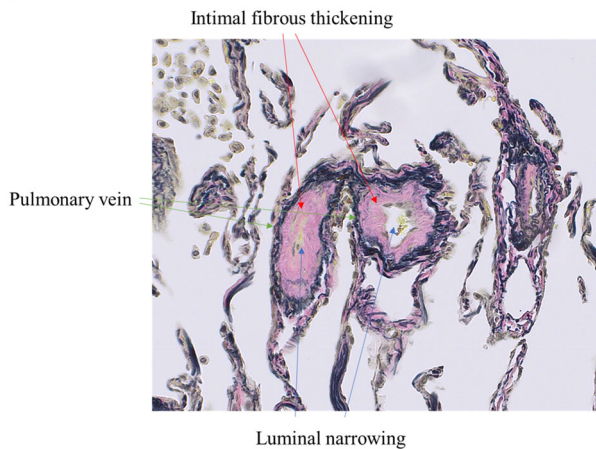


FIGURE 2 Autopsy findings shows intimal fibrous thickening, luminal narrowing, and partially occluded venules to pulmonary veins in both lungs. No thrombus or tumour embolism are shown.

pulmonary veins in bilateral lungs. No thrombi including tumour was observed, and she was diagnosed with PH due to pulmonary veno-occlusive disease (PVOD). In addition, no evidence of pulmonary lesions associated with lung consolidations on chest CT was observed. Lung congestion sometimes occurs in patients with severe PVOD, and lung congestion may show pulmonary consolidations on chest CT. Thus, it is hypothesized that the observed disappearance of pulmonary consolidations on chest CT may be attributable to altered blood flow due to the change of body posture. Generally, CT findings of PVOD include centrilobular GGO, a mosaic pattern, and septal lines.¹ The disappearance of pulmonary consolidation upon repositioning has not been previously reported.

AUTHOR CONTRIBUTIONS

Kei Yamasaki was responsible for drafting the work, the conception or design of the work, and for the acquisition, analysis, and interpretation of the data for the work. Yuto Iwanaga was responsible for revising the manuscript

critically for important intellectual content. Takumu Uryu was responsible for revising the manuscript critically for important intellectual content. Tomoki Sato was responsible for revising the manuscript critically for important intellectual content. Takako Kawaguchi was responsible for revising the manuscript critically for important intellectual content. Chinatsu Nishida was responsible for revising the manuscript critically for important intellectual content. Kazuhiro Yatera was responsible for final approval of the manuscript version to be published.

CONFLICT OF INTEREST STATEMENT

None declared.

DATA AVAILABILITY STATEMENT

Data sharing not applicable-no new data generated, or the article describes entirely theoretical research

ETHICS STATEMENT

The authors declare that appropriate written informed consent was obtained from her family for the publication of this manuscript and accompanying images.

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How to cite this article: Yamasaki K, Iwanaga Y, Uryu T, Sato T, Kawaguchi T, Nishida C, et al. Pulmonary veno-occlusive disease with vanished pulmonary consolidation. *Respirology Case Reports*. 2023;11:e01219. <https://doi.org/10.1002/rcr2.1219>