A 36-year-old man experienced new-onset dyspnea on exertion. His previous medical history was unremarkable except for a motorcycle accident 16 years ago with multiple fractures of his right leg requiring surgery. Echocardiography showed severe right heart enlargement with impaired right ventricular function in the absence of intracardiac shunts or valvular heart disease. Venous duplex scanning demonstrated old organized thrombus in the right popliteal and femoral veins. Hemodynamic evaluation at rest disclosed pulmonary hypertension with a pulmonary vascular resistance of 600 dynes·s·cm⁻². Selective digital subtraction angiography showed irregular contours of the central pulmonary arteries, filling defects, and pruning of smaller, subsegmental arteries (Figure, A). Contrast medium–enhanced multiple detector-row (or multislice) spiral CT with 3D rendering clearly demonstrated the organized thromboembolic masses, thus confirming the diagnosis of chronic thromboembolic pulmonary hypertension (Figure, B). The patient underwent a successful bilateral pulmonary thromboendarterectomy, yielding 25 g of whitish-reddish, partly organized thromboembolus (Figure, C), with subsequent normalization of pulmonary hemodynamics and exercise capacity.
Three-Dimensional Visualization of Pulmonary Thromboemboli in Chronic Thromboembolic Pulmonary Hypertension With Multiple Detector-Row Spiral Computed Tomography

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