

Rapid Dilatation of False Lumen in a Patient With Chronic Aortic Dissection Under Suspicion of Anticoagulation Therapy-Induced Recanalization

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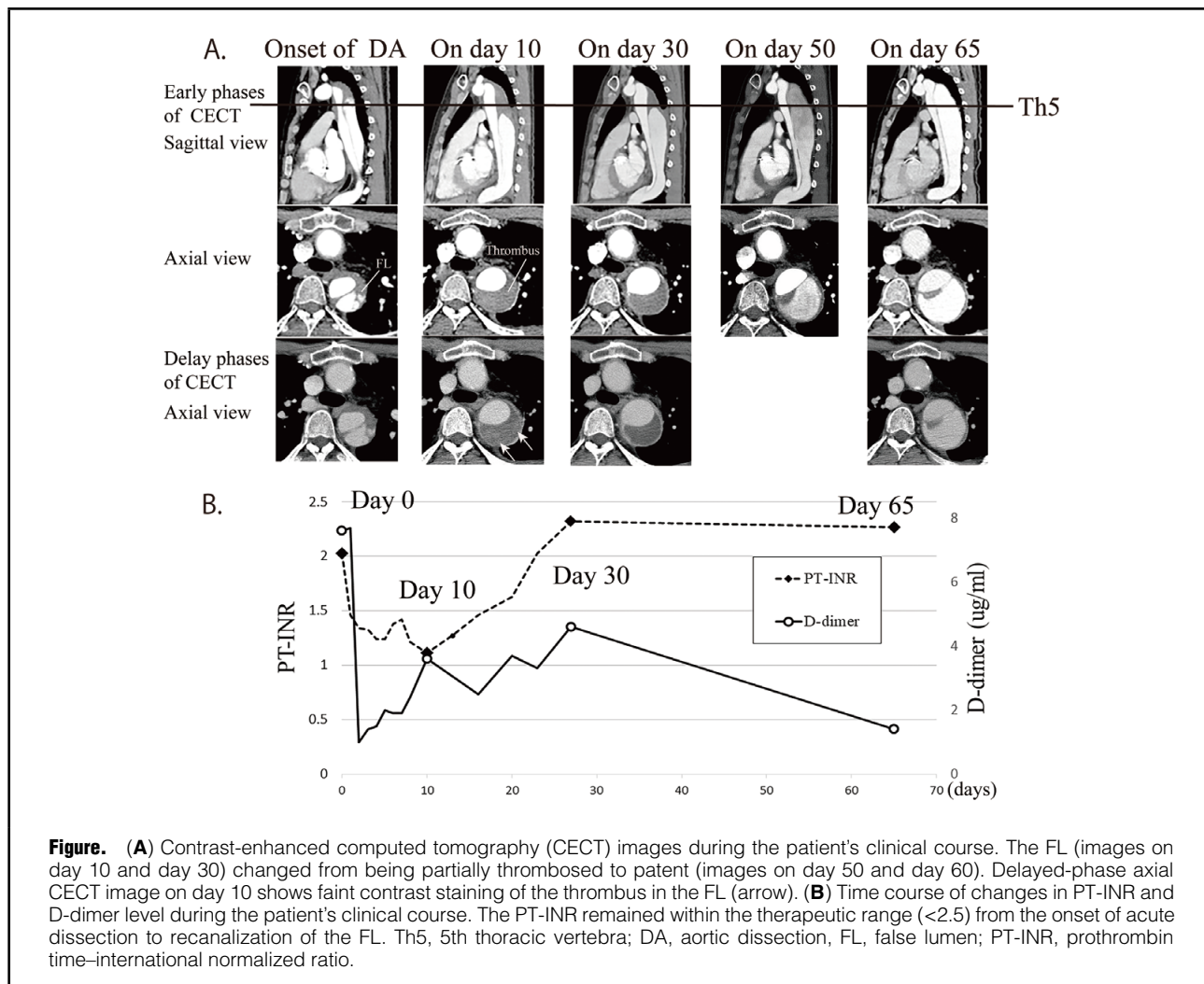


Figure. (A) Contrast-enhanced computed tomography (CECT) images during the patient's clinical course. The FL (images on day 10 and day 30) changed from being partially thrombosed to patent (images on day 50 and day 60). Delayed-phase axial CECT image on day 10 shows faint contrast staining of the thrombus in the FL (arrow). (B) Time course of changes in PT-INR and D-dimer level during the patient's clinical course. The PT-INR remained within the therapeutic range (<2.5) from the onset of acute dissection to recanalization of the FL. Th5, 5th thoracic vertebra; DA, aortic dissection, FL, false lumen; PT-INR, prothrombin time–international normalized ratio.

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A 33-year-old man with Marfan syndrome, who had undergone a Bentall procedure with a mechanical valve for acute type A (DeBakey type IIa) aortic dissection 14 years previously, subsequently developed an acute type B aortic dissection with partial thrombosis of the false lumen (FL) from the distal arch of the aorta to the left common iliac artery. Low-dose warfarin was therefore administered to maintain the prothrombin time-international normalized ratio (PT-INR) at <2 . On day 10, the thrombus in the FL was enlarged on computed tomography (CT) images, and so the warfarin dose was adjusted to PT-INR 2–2.5 to prevent thromboembolism associated with the mechanical valve (**Figure B**). From day 10 thrombosis of the FL reduced under moderate-intensity anticoagulation therapy, but on day 65 the patient was admitted to hospital complaining of severe postprandial abdominal pain. CT revealed that the thrombus in the FL had completely disappeared, and the descending thoracic aortic (diameter

53 mm) had dilated rapidly (8 mm in 2 months) (**Figure A**). He was diagnosed with severe mesenteric ischemia induced by progressive dynamic compression of the true lumen due to dilatation of the patent FL. He underwent replacement of the distal aortic arch and descending aorta, with uneventful outcome 1 year after surgery. Marfan syndrome, and associated structural connective tissue weakness, may have contributed to the recanalization of the partially thrombosed FL. However, elevated PT-INR (PT-INR from <2 to >2) and increased D-dimer levels were presumed to correlate with reduced thrombus in the FL. Moreover, review of the delayed-phase axial contrast-enhanced CT images on day 10 revealed faint staining of the thrombus in the FL, indicating its incomplete formation. These findings suggest that anticoagulation was associated with the recanalization of the FL. Careful observation is therefore needed in patients with a partially thrombosed FL who require oral anticoagulation therapy.