Marcucci R. asked whether we can assess the resistance of antiplatelet drugs [1]. Although pulmonary vein thromboses are believed to be rare, since 2012, I have published several cases of pulmonary vein thromboses in elderly patients with chest pain using 64-slice multidetector computed tomography (64-MDCT) [2–10]. Using 64-MDCT, I have reported that warfarin [2] or dabigatran [3–5] dissolved a pulmonary vein thrombus and a left atrial thrombus [6] in some cases, and in other cases, it did not dissolve the thrombus [7,8].

In this manuscript, I demonstrate another case showing that dabigatran dissolved a thrombus in the left lower pulmonary vein (LLPV) almost entirely. A 68-year-old male with chest pain was examined by 64-MDCT to assess coronary artery stenosis. A 64-MDCT scan showed a thrombus in the LLPV (Fig. 1). After three months of dabigatran therapy, the thrombus dissolved almost entirely (Fig. 2). With the 64-MDCT scan, some dark parts remained and are assumed to be a fibrin network, indicating that the thrombus dissolved mildly without producing a big fragment of the thrombus that can become a cause of systemic thrombosis, such as cerebral infarction.

In 2014, I reported that 61% (35 patients) of 57 elderly patients with chest pain had pulmonary vein thrombi that sometimes extended into the left atrium [5]. Marcucci R. treated patients with acute coronary syndrome; approximately half of his patients will have a pulmonary vein thrombus. Additionally, using 64-MDCT, I reported that warfarin dissolved a left atrial thrombus partly [6]. We may be able to assess antiplatelet drug resistance by assessing a pulmonary vein thrombus and a left atrial appendage thrombus, before and after three months of antiplatelet drugs, using 64-MDCT in at least half of cases. If the patients had antiplatelet drug resistance, a cardiac thrombus might not dissolve.
We may use 64-MDCT to assess antiplatelet drug resistance in patients with a cardiac thrombus such as a pulmonary vein thrombus.

Conflict of interest

There is no conflict of interest.

References

[6] Takeuchi H. A 64-slice multi-detector CT scan could evaluate the change of the left atrial appendage thrombi of the atrial fibrillation patient, which was reduced by warfarin therapy. BMJ Case Rep Aug 19 2011. http://dx.doi.org/10.1136/bcr11-2009-2491 [Published online].

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