QUIZ

Quiz – Interventional cardiology: Coronary computed tomography angiography in non-ST elevation myocardial infarction

A-60-year-old male, attended to cardiology outpatient clinic with a numbness for 1 week without chest pain. In his medical history, no hypertension or diabetes mellitus was present. He was smoking for 60 packs-years. In his family medical history, his brother had myocardial infarction at the age of 57. His physical examination was normal. Electrocardiogram and echocardiography were performed and no abnormality was found. In laboratory tests, troponin I level was found high as 2.589 ng/mL (the upper limit is 0.04 ng/mL at the reference range of our laboratory). Non-ST elevated myocardial infarction (NSTEMI) was diagnosed and then he was referred to coronary angiography.

In coronary angiography, no stenosis or thrombus was detected in left coronary system and since the right coronary artery (RCA) ostium could not be cannulated selectively, non-selective imaging was performed by physician and coronary computed tomography angiography (CCTA) was done (Video 1 – see video at www.hvt-journal.com).

A. According to CCTA images, which one is the possible diagnosis?

1. Anomalous location of coronary artery

2. Coronary ectasia

3. Coronary dissection

4. Coronary vasospasm

5. Coronary plaque disruption

B. What is the most reasonable cause for elevated troponin levels?

1. Myocardial infarction due to coronary vasospasm

2. Myocardial infarction due to coronary thrombus on left anterior descending artery

3. Myocardial infarction due to coronary dissection on RCA

4. Myocardial infarction due to compression of RCA

5. Myocarditis (Takotsubo cardiomyopathy)

Video 1. Coronary angiography images

(visit www.hvt-journal.com to see video images)

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