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Heavy Coronary Calcium Mimicking In-Stent Restenosis

Jeong-Hwan Park, MD¹, Il-Suk Sohn, MD¹, Eun-Sun Jin, MD¹,
Jin-Man Cho, MD¹, Chong-Jin Kim, MD¹ and Young Kyung Lee, MD²

¹Departments of Cardiology and ²Radiology, Kyung Hee University College of Medicine, East-West Neo Medical Center, Seoul, Korea

A 49-year-old man was referred for the evaluation of ischemic heart disease. He was told having calcified coronary artery on low-dose chest computed tomography (CT) checked for routine health screening. He denied past coronary intervention and he was healthy without smoking. Treadmill exercise echocardiography showed normal findings without post-exercise wall motion abnormalities. Multislice scanner with 64-row multidetector CT (MDCT) (Brilliance, Philips, Netherlands) revealed heavily calcified coronary arteries with very high calcium score (Agatston unit 1039.7) (Fig. 1, white arrows). Right coronary artery also had high calcium burden with linear calcium mimicking coronary stent (Fig. 1B, white arrow), which was misinterpreted as in-stent restenosis. Coronary angiography was not performed thereafter.

MDCT provides non-invasive imaging of coronary anat-

omy and is widely used in the various clinical settings.¹⁻³⁾ However, coronary calcium can reduce its diagnostic value and has various features. Careful history taking and understanding for this various characteristics of coronary calcium on MDCT may give chance to avoid misinterpretation.

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Fig. 1. Coronary CT angiography with 64-row multidetector computed tomography revealed heavily calcified coronary arteries with a very high calcium score (Agatston score 1039.7). A: coronary calcium (white arrows) in the left coronary artery. B: coronary calcium in the distal right coronary artery, mimicking a stent with intraluminal narrowing (white arrows).

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Correspondence: Il-Suk Sohn, MD, Department of Cardiology, Kyung Hee University College of Medicine, East-West Neo Medical Center, 149 Sangjildong, Gangdong-gu, Seoul 134-727, Korea
Tel: 82-2-440-6108, Fax: 82-2-440-7242, E-mail: issohn@khu.ac.kr

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