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**CLINICAL VIGNETTE**

Aortic valvular endocarditis with mobile vegetations and intracoronary embolism: demonstration by cardiac multislice computed tomography

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A 51-year-old patient, treated for dental abscess 3 months ago, was admitted for an acute coronary syndrome and fever. He had a fever of 38.5°C and a diastolic murmur. Blood cultures were positive for *Streptococcus anginosus*. Echocardiography confirmed an aortic valvular endocarditis with severe aortic regurgitation and highly mobile vegetations. Because of the vegetations, non-invasive coronary angiography using ECG-gated 64-multislice computed tomography (MSCT) was performed instead of conventional angiography. MSCT demonstrated two mobile vegetations with a length of 5 mm on the left aortic cusp and 12 mm on the right aortic cusp with systolic protrusion in the aortic root near the coronary artery ostia (Panels A and B). MSCT revealed also significant lesions on the three major coronary arteries and an intraluminal non-calcified soft tissue in the proximal left anterior descending artery (LAD) (Panel C). The patient was referred for surgery without complementary invasive coronary angiography. A triple coronary artery bypass grafting and an aortic replacement with a Hall Kaster prosthesis were performed. Vegetations were confirmed by the surgeon. Five days later, a second MSCT was performed because of increased troponin levels. The three patent coronary artery bypass graft were visualized. Contrary to the previous MSCT, the proximal LAD was founded nearly normal without unusual intraluminal soft tissue visualized previously (Panel D). We thought that intracoronary septic embolism was the first possible mechanism in view of the association of mobile vegetations near the coronary artery ostia, and intracoronary soft tissue with similar attenuation value of 47±35 HU which disappear in a few days. Several papers have reported the usefulness of MSCT in case of aortic endocarditis, but MSCT evidence of coronary embolism was not reported before.

Panels A and B. ECG-gated MSCT after intravenous contrast injection reveal a mobile vegetation on the left coronary cusp (broken arrow) and a larger vegetation on the right coronary cusp (arrow). Coronal multiplanar reconstruction in systole (Panel A) with corresponding virtual angioscopy (Panel B).

Panels C and D. ECG-gated MSCT before surgery. Curved multiplanar reconstruction of the proximal left anterior descending (LAD) artery. Arrow head: unusual non-calcified tissue in the lumen of the proximal LAD (Panel C), but not present 6 days after surgery (Panel D), corresponding to the intracoronary embolism.