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Extended Abstract
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Cardiology-2020: Posterolateral Hypokinesia–Slight &Lrcumfle[Artery Stenosis or Mid-Ventricular Takotsubo Cardiomyopathy?- Stefan Peters - AMEOS Hospital Halberstadt, Teaching Hospital of the University Clinic of Magdeburg, Germany

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Case Report

Echocardiographic abnormalities like segmental impairment of the lei ventricle can be documented in about 15% of cases as a hint for coronary artery disease. In these cases coronary angiography is indicated without stress examination.

In a 62-year old male patient with seldon atypical chest pain at rest, independant or physical stress. ECG was completely normal without any sign of ischemia. Echocardiography revealed normal dimension of the left ventricle (EDD 4.6cm) with an ejection fraction of 56%, valves without signs of sclerosis or regurtation. No impairment of the anterior and inferior left ventricular wall, but signs of posterolateral hypokinesia.

At coronary angiography the circumflex artery revealed slight stenosis at the mid-portion, FFR measurement could exclude relevant ischemia. The left anterior descending coronary artery showed rigid straightening at the mid-portion without systolic lumen reduction, but with systolic compression of the second diagonal branch. A wraparound phenomenon of the anterior descending coronary artery could be excluded.

Discussion

In a lot of cases echocardiographic segmental impairment points to relevant coronary artery disease. Coronary angiography is indicated without stress examination.

In some cases echocardiographic segmental impairment points to other forms of heart diseases. Posterolateral / inferior or anteromedial hypokinesia should be a concealed form of mid-ventricular ballooning in takotsuko cardiomyopathy [1].

These forms of takotsubo cardiomyopathy are often characterized by a rigid straightening of the left anterior descending coronary artery without significant lumen reduction, but with systolic compression of septal (or seldomly diagonal) branches [2]. If cardiac computer tomography is performed, myocardial bridging of the LAD could be often diagnosed [3]. Three forms of takotsubo cardiomyopathy can be differentiated an apical form of ballooning with wrap-around phenomenon of the lei anterior descending coronary artery [2,4], a mid-ventricular form of ballooning and a basal form of ballooning without wrap-around phenomenon.

In the presented case posterolateral hypokinesia by standard echocardiography was not due to non-ischemic lesion of the circumflex artery but was part of takotsubo cardiomyopathy and concealed mid-ventricular ballooning.

In cases of atypical chest pain coronary angiography can - in most cases-reveal atypical findings like typical myocardial bridging or atypical origin of coronary arteries. In about 24% of cases arrhythmogenic cardiomyopathy presents with chest pain–an important differential diagnosis of chest pain.

References

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