Case Report

The left main coronary artery aneurysm as a cause of distal embolization in a patient with acute coronary syndrome?

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Coronary arteries aneurysm is described with 0.15–4.9% of patients undergoing the coronary angiography [1]. The most frequent are aneurysms of the right coronary artery, the least frequent is the finding of aneurysm in the left main coronary artery, which is described with 0.1% of the examined patients [2].

\begin{figure}
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\includegraphics[width=\textwidth]{Figure1.png}
\caption{Aneurysm of the LMCA—Coronary angiography. View RAO 32° CAU 10°.}
\end{figure}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Figure2.png}
\caption{Coronary angiography. View anteroposterior projection.}
\end{figure}
The most common cause of the coronary arteries’ aneurysm in the childhood is the Kawasaki syndrome [2], in the adulthood it is the atherosclerosis, less frequently then the inflammatory artery disease (polyarteritis nodosa, Takayasu disease, candidosis), connective tissues’ metabolism disorders, or late complications of coronary interventions (after the implantation of DES stents).

Clinical consequences consist in thrombosis of the aneurysm and distal embolisms with symptoms of myocardial ischemia [3].

There are no unequivocal, recommendations for management of therapy of coronary aneurysms.

Pharmacotherapy will influence the consequences of aneurysms (antiplatelet pharmacotherapy). The causal solution is elimination of the aneurysm. This may be done either by intervention methods (implantation of special stent-graft type of stent, or by the “double stent” method assuming the reduced permeability into the aneurysm, and subsequent spontaneous thrombization of the aneurysm), or by a combination of coronary artery by-pass graft with surgical resection of the aneurysm [1,3].

We are presenting a case of a 61 year-old man, admitted for hospitalization with chest pain after an emotional strain, with decompensated hypertension. ECG showed no significant denivelation of ST segments, with positive cardioselective enzymes (the troponin I with dynamics of 0.4–1.0–0.5–0.2 ng/ml), echocardiography examination was without left ventricle kinetics dysfunction. During the observation period, the patient was without other subjective complaints.

Coronary angiography examination was conducted on the patient with the finding of minimal atherosclerotic changes of coronary arteries, without angiography-significant stenosis (evaluated by estimation). On the ventrocranial part of distal left main coronary artery was displayed an aneurysm with...
size of 2.0 × 9.0 mm (Figs. 1–3). Later we supplemented the CT coronary angiography examination that proved the finding from angiography (Figs. 4–9).

With regard to the history, the image on the coronary angiography and CTA, we believe that the etiology of the finding lies in an old, healed spontaneous dissection of the left main coronary artery.

With respect to the size of the aneurysm we decided for a conservative solution with antiplatelet therapy and secondary prevention of atherosclerosis, particularly with medication by hypolipidemics. The patient was in a clinically good state discharged. As a reference method for comparing the development of aneurysm was selected the CT coronary angiography, which is planned in the horizon of 12 months.

REFERENCES