

Case Report

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Visible Thrombus and Ruptured Plaque in Right Coronary Artery

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Abstract

Atherosclerotic plaque rupture and subsequent thrombosis are major pathophysiological mechanisms as cause of acute coronary syndromes. Patients with stable obstructive coronary artery disease may live for many years without any cardiovascular events through only risk factor modification and prompt medical treatment. However patients with minimal coronary artery disease may experience premature cardiovascular events moreover death. Thus, plaque stabilization may be much important rather than struggle with stenosis. We report a case of NSTEMI with ruptured atherosclerotic plaque and subsequent thrombosis as a culprit lesion in right coronary artery.

Keywords: Acute coronary syndromes; Atherosclerotic plaque rupture; Thrombosis; Coronary angiography; Plaque stabilization

Case Report

A 66 years old smoker male with history of CAD is presented with episode of retrosternal chest pain that last 30 minutes. The patient has not any chest pain during admitted to hospital. Physical findings are not significant [1]. ECG does not show any abnormality aside from inverse T wave in inferior leads. Troponin T and CK-MB are elevated.

Another biochemical tests are not abnormal. Echocardiography does not show any wall motion abnormality and Left ventricular ejection fraction is 50%. Aspirin and Ticagrelor is given. Coronary angiography reveals visible thrombus in right coronary artery (Figure 1) and diffuse stenosis in circumflex artery that filling through distal collaterals (Figure 2).

One year ago same patient's coronary angiography showed moderate atherosclerotic plaque without any visible thrombus in right coronary artery (Figure 3). We think that culprit lesion is in right coronary artery. We decide performing PCI for right coronary artery.

When 0.014 guidewire intercross the lesion, distal flow is off and contrast media stasis in the myocardium (Figure 4). RCA stenting is immediately performed. Heparin and Abciximab infusion is started. The patient is admitted to coronary care unit.



Figure 1: Star indicates serious lesion in right coronary artery and arrow indicates thrombus.

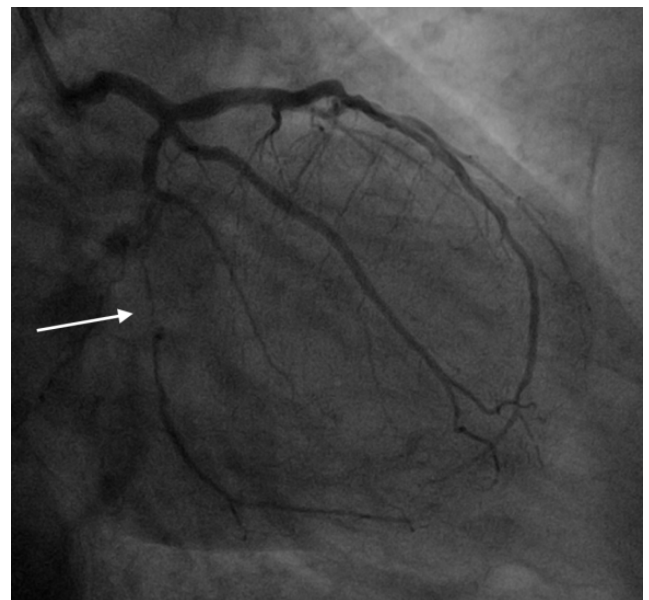


Figure 2: Arrow indicates diffuse obstructive lesion in circumflex coronary artery.

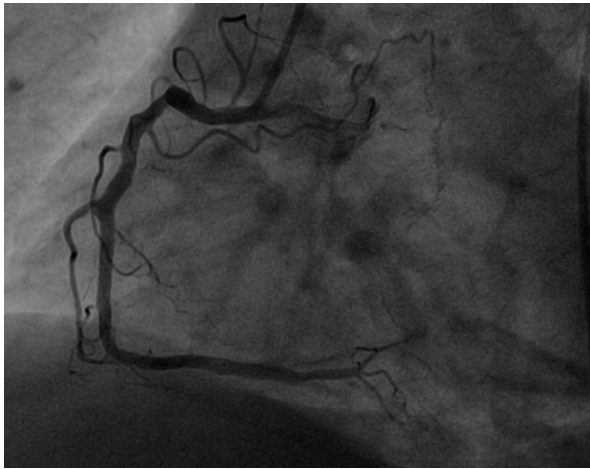


Figure 3: Shows plaques but non-obstructive in right coronary artery.

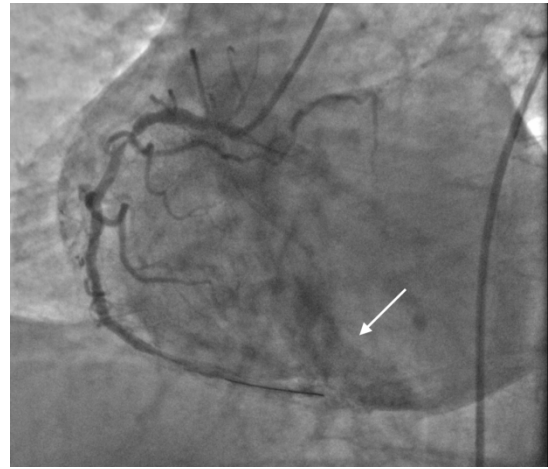


Figure 4: Arrow points that distal flow is off and contrast media stasis in myocardium.

Discussion and Conclusion

What are we know regarding coronary artery disease and acute coronary syndromes? What are-difference between stable coronary artery disease and acute coronary syndromes? Atherosclerotic plaque rupture and subsequent thrombosis are major pathophysiological mechanisms as causes of acute coronary syndromes as well our case. One year ago the patient's coronary angiography shows diffuse serious lesion in circumflex artery and non-obstructive plaques in right coronary artery. Although lesions in circumflex coronary artery are critical than these in right coronary artery, plaque rupture and subsequent thrombosis occurred in right coronary artery. Thus plaque stabilization and preventive of thrombosis may be important. Distal embolisation during PCI is important problem. Prompt anticoagulant and antiplatelet agents should be given previous and during procedure.

References

1. Libby P (2001) Current concepts of the pathogenesis of the acute coronary syndromes. MD Circulation 104: 365-372.