# Polyarteritis Nodosa-Related Coronary Aneurysms

HÉLÈNE MAILLARD-LEFEBVRE, MD; DAVID LAUNAY, MD, Department of Internal Medicine, National Center for Vascular Manifestations of Scleroderma; FRÉDÉRIC MOUQUET, MD, Department of Cardiology; VIRGINIA GAXOTTE, MD, Department of Cardiovascular Radiology; ERIC HACHULLA, MD, PhD, Department of Internal Medicine, National Center for Vascular Manifestations of Scleroderma; PASCAL de GROOTE, MD, Department of Cardiology; MARC LAMBERT, MD; VIVIANE QUEYREL, MD; SANDRINE MORELL-DUBOIS, MD, Department of Internal Medicine, National Center for Vascular Manifestations of Scleroderma; JEAN-PAUL BÉRÉGI, MD, PhD, Department of Cardiovascular Radiology; CHRISTOPHE BAUTERS, MD, PhD, Department of Cardiology; PIERRE-YVES HATRON, MD, PhD, Department of Internal Medicine, National Center for Vascular Manifestations of Scleroderma, Regional University Hospital, Lille 2 University, Lille, France. Address reprint requests to Dr. D. Launay, Service de Médecine Interne, Hôpital Claude-Huriez, CHRU Lille, rue Michel Polonovski, 59037 Lille Cedex, France. E-mail: d-launay@chru-lille.fr.
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Severe cardiac involvement in polyarteritis nodosa (PAN) is unusual[1]. Nevertheless, sudden deaths related to coronary aneurysm or dissection in PAN have been reported[2-4]. We describe a patient with coronary aneurysms revealing cardiac involvement in PAN.

A 48-year-old woman was diagnosed with PAN for 5 years. Transthoracic echocardiography was normal. She was treated with low-dose prednisone. She was admitted following a 1-year history of worsening dyspnea. Echocardiography showed a dilated cardiomyopathy with global hypokinesis and severe impairment of the left ventricular ejection fraction (30%).

She underwent coronary angiography that revealed multiple microaneurysms on the left anterior descending coronary artery, the left circumflex coronary artery (Figure 1), and the right coronary artery. Electrocardiograph (ECG)-gated multislice spiral computed tomography (CT) scan showed the aneurysm of the left anterior descending coronary artery (Figure 2) and the right coronary artery.

As PAN-related cardiac involvement was diagnosed, intravenous methylprednisolone followed by oral prednisone and monthly pulses of cyclophosphamide for 6 months were started[5]. Azathioprine was given as a maintenance drug.

Dyspnea quickly improved and C-reactive protein normalized. Two months after the last pulse of cyclophosphamide, ECG showed normalization of the left ventricular ejection fraction and CT coronary angiography an improvement of the aneurysms.

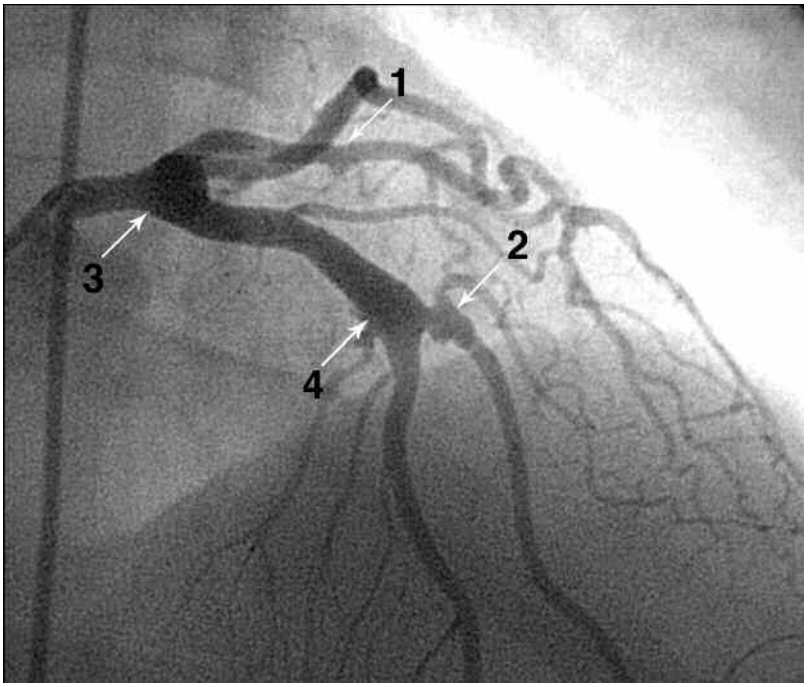


*Figure 1.* Right oblique anterior view of the left coronary artery angiography showing aneurysms of the left circumflex coronary artery in its proximal segment (1) and of a medium segment of the left anterior descending coronary artery (2); and focal ectasy of the distal part of the left main coronary artery (3) and of the medium segment of the left anterior descending coronary artery (4).


*Figure 2.* Left coronary artery reconstruction of the ECG-gated multislice spiral CT scan showing the corresponding aneurysm of a medium segment of the left anterior descending coronary artery (2), and focal ectasy of the distal part of the left main coronary artery (3) and of the medium segment of the left anterior descending coronary artery (4). The aneurysm of the proximal segment of the left circumflex artery (1) is not visible.

This case suggests that cardiomyopathy in a patient with PAN could indicate a cardiac localization of it. Coronary angiography or ECG-gated multislice spiral CT coronary scan can show coronary microaneurysms, confirming the diagnosis of PAN-related cardiac involvement. As we have shown, aggressive immunosuppressive therapy can be successful.

## ACKNOWLEDGMENT

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