

Multivessel Woven Coronary Artery Disease

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Abstract

Woven coronary disease is a rare pathology with unknown etiology. Although initially considered benign, recent publications report myocardial ischemia caused by the affected vessel. Since most patients are asymptomatic, long-term follow-up to understand its behavior is mandatory. We report a

multivessel woven disease case with documented ischemia that was submitted to coronary artery bypass grafting and remained asymptomatic for two years of follow-up.

Keywords: Coronary Artery Disease. Woven Coronary Disease. Coronary Anomaly. Coronary Artery Bypass Grafts.

Abbreviations, acronyms & symbols

CABG	= Coronary artery bypass grafting
CX	= Circumflex artery
Dg	= Diagonal branch of the LAD
LAD	= Left anterior descending artery
LIMA	= Left internal mammary artery
PCI	= Percutaneous coronary intervention
RCA	= Right coronary artery

INTRODUCTION

A 40-year-old male patient had symptoms of dyspnea on moderate exertion and chest discomfort. The patient was a nonsmoker and had no other risk factors for coronary disease. He had been previously hospitalized for minor stroke without cognitive or motor impairment. His complementary diagnostic exams at the stroke event were magnetic resonance imaging demonstrating acute ischemia on his right cerebellar artery; angiotomography showing right vertebral artery tapered with

areas of diffuse stenosis; and doppler ultrasound demonstrating right carotid plaque.

Initial cardiologic investigation presented exercise stress test positive for ischemia. His echocardiogram showed ejection fraction of 63% with normal ventricular wall motion, without valvular commitment. Angiotomography showed intraluminal filling defect on all three major coronaries (Figure 1).

He was then submitted to coronary angiography that showed total occlusion of the circumflex artery on the proximal third, with collateral flow to a posterior marginal branch. The intraluminal filling defect had Swiss cheese aspect characteristic of woven disease. Left anterior descending artery (LAD) had proximal stenosis followed by the same intraluminal filling defect on the second third of the coronary. Diagonal branch originated from the woven segment of the LADs. Right coronary artery (RCA) also showed filling defect on the middle and distal thirds of the coronary and small distal diameter (Figure 2).

The heart team decided that coronary artery bypass grafting (CABG) was the best treatment of choice, considering his anatomy and the risk factors. The patient was successfully treated with on-pump CABG, using the sequence left internal

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This study was carried out at the Department of Cardiovascular Surgery, Instituto do Coração, Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, São Paulo, Brazil.

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