A 68-year-old woman was admitted for an anterolateral myocardial infarction (MI). She had neurofibromatosis type 1 (NF-1) and 2 previous hospitalizations for non-ST-segment elevation MI, medically treated. In those episodes, aneurysmal coronary arteries with fresh thrombus in left anterior descending artery (LAD) were described.

Emergent coronary angiography (CA) revealed a giant aneurysm in the mid-LAD with multiple small fresh thrombi (Figures 1A to 1C, Online Videos 1, 2, and 3). There were Thrombolysis In Myocardial Infarction flow grade 3 and no significant stenosis. Aneurysmal dilations without significant stenosis were also observed in the right coronary and circumflex arteries (Figures 1A to 1D). Triple antiplatelet therapy (aspirin, clopidogrel, abciximab [intracoronary bolus and 12-h perfusion]) and anticoagulation (enoxaparine 60 mg bid) were administered.

One week later, scheduled CA showed a complete angiographic resolution of the thrombus (Figures 1E and 1F, Online Videos 4 and 5). No percutaneous coronary intervention (PCI) was performed. Given that this episode was the third MI in aneurysmal coronary arteries, we decided to continue permanent anticoagulation and double-antiplatelet therapy for 1 year. Fourteen months later, the patient remains asymptomatic without any event.

Vascular manifestations of NF-1 comprise aneurysmal and stenotic abnormalities that can affect different arterial territories (1). Although affecting coronary arteries is extremely rare, coronary aneurysms have been described and can cause MI by thrombosis, vasospasm, and stenosis (2). No consensus exists regarding its treatment, and several PCIs (thromboaspiration, stent implantation) and antithrombotic regimens have been used (3). If TIMI flow grade 3 is preserved and no significant stenosis exists, a conservative management with antithrombotics and permanent anticoagulation may be the best option and could reduce further events.

From the Cardiology Department, University Hospital Doce de Octubre, Madrid, Spain. The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

Manuscript received October 13, 2014; accepted October 23, 2014.
FIGURE 1 Emergent and After Treatment Coronary Angiograms

(A to C, Online Videos 1, 2, and 3) Emergent coronary angiograms. (D to F, Online Videos 4 and 5) Scheduled coronary angiography 1 week later. Arrows indicate the giant left anterior descending artery aneurysm. Asterisks indicate multiple small little fresh thrombi. Arrowheads indicate aneurysmal dilations in the right coronary and circumflex arteries.
REFERENCES


KEY WORDS anticoagulation, coronary aneurysm, myocardial infarction, neurofibromatosis type 1

APPENDIX For accompanying videos, please see the online version of this article.