



FIT Clinical Decision Making

A CASE OF STENT THROMBOSIS CAUSED BY METAL ALLERGY COMPLICATED WITH PROTEIN S DEFICIENCY AND HEPARIN-INDUCED THROMBOCYTOPENIA

Poster Contributions

Poster Hall, Hall C

Sunday, March 19, 2017, 9:45 a.m.-10:30 a.m.

Session Title: FIT Clinical Decision-Making: Interventional Cardiology, Acute and Stable Ischemic Heart Disease, and Vascular Medicine

Abstract Category: Acute and Stable Ischemic Heart Disease

Presentation Number: 1300-379

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Background: Stent thrombosis (ST) is a rare though critical complication of PCI, which may occur despite recent progress in antiplatelet therapy and procedural techniques. So far, however, no reports exist mentioning ST caused by metal allergy complicated by protein S deficiency and heparin-induced thrombocytopenia.

Case: A 43-year-old woman recipient of a bare metal coronary stent during an acute anterior myocardial infarction was repeatedly hospitalized with recurrent stent thrombosis (ST) over the following 3 years. Emergent coronary angiography showed a thrombus in the in-stent segment of the proximal left anterior descending artery. We repeatedly aspirated the thrombus, which immediately reformed multiple times. The discontinuation of heparin and administration of thrombolytics and argatroban, followed by repeated balloon dilatations, ended the formation of new thrombi. The patient was found to be allergic to nickel, protein S deficient and carrier of heparin-induced thrombocytopenia antibody.

Decision-Making: The patient was discharged from the hospital on a regimen of dabigatran, 300 mg/day, later replaced by rivaroxaban, 15 mg/day, instead of warfarin. However, she suffered a 4th ST in the pLAD artery 4 months later and, despite the prescription of the anti-allergic agent, fexofenadine, 120 mg/day, she experienced a 5th ST 1 month later. Prednisolone, gradually tapered from 25 to 5 mg/day, was added and the patient remained free from ST over a 3-year follow-up. This clinical course suggested that her recurrent thrombotic events were caused mainly by a stent allergy, and that PS deficiency and HIT are associated with ST.

Conclusions: Our observations suggest that an allergy to the stent should be considered as a possible cause of recurrent ST after stent implantation in relatively young patients. In addition, a history of metal allergy should be meticulously explored before elective PCI. Besides antiplatelet therapy, steroids may effectively prevent ST caused by a metal allergy. Detailed examinations and the early identification of other aetiologies can prevent recurrent major thrombotic events.