

A case of stent thrombosis caused by metal allergy complicated by protein S deficiency and heparin-induced thrombocytopenia

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. This is the first case of ST associated with metal allergy in addition to HIT and PS deficiency. 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, who should undergo patch testing. Detailed examinations and the early identification of other aetiologies can prevent recurrent major thrombotic events. It is noteworthy that, once formed, circulating HIT antibodies may be activated by the regular use of heparin-coated vascular access, persist for years, and be the cause of life-threatening thrombotic events. When acute coronary thrombosis occurs during PCI, HIT should always be strongly considered, since the failure to promptly discontinue all heparin administration and initiate an alternate antithrombotic agent may be the source of major morbidity and mortality. Steroid might be effective to prevent recurrent ST caused by stent allergy because she has not had ST over the 18 months.