A rare case of diffuse coronary artery ectasia presenting as acute myocardial infarction

L. Satish *, Sanjeev Sanghvi
No 76, New PG Hostel, MDM Hospital Campus, Shastri Nagar, Jodhpur, Rajasthan 342003, India

Introduction: Diffuse coronary artery ectasia (CAE) is a relatively infrequent anomaly encountered during coronary angiography. Although most often an incidental finding, patients may present with myocardial ischemia requiring therapeutic interventions. We describe a case of a young patient with CAE who presented with an acute coronary syndrome and subsequently underwent successful percutaneous coronary revascularization.

Case presentation: A 32-year-old man got admitted to our institution with acute onset chest pain since 6 h. He was not a diabetic, hypertensive or smoker. ECG done showed ST elevation in lead II, III, avf. Patient was diagnosed to have acute inferior wall myocardial infarction and was thrombolysed with streptokinase. Subsequent ECG done showed decrease in ST segment elevation of more than 50%. But as patient still had persisting chest pain patient was advised to undergo coronary angiography (CAG). CAG done on subsequent day showed diffuse ectasia of right coronary artery with huge thrombus burden. 6000 units of unfractionated heparin was injected at the beginning of CAG. Then aspiration catheter (Thrombuster-II 7F, Kaneka, Japan) was advanced through a guidewire (JR 3, 7F), and thrombus aspiration was attempted but thrombus could not be aspirated, so then streptokinase (50000 units injected at the beginning of CAG. Then aspiration catheter was advanced again to aspirate the remaining thrombus. Thrombus aspiration was done twice and huge amount of thrombus was aspirated. Subsequent angiography showed restoration of TIMI 3 flow. The postprocedure course was uneventful. Since coronary ectasia was thought to be the primary cause for the thrombus formation in this case, antiocoagulation therapy with warfarin was started (2 mg/day) immediately after the procedure in addition to aspirin (150 mg/day). Warfarin was titrated thereafter so as to obtain a PT-INR of 2.0–2.5. Patient is now coming for routine follow-up and is now symptom free.

Discussion: CAE is defined as an enlargement of a coronary vessel of at least 1.5 times the diameter of a normal adjacent reference segment. It can be focal or diffuse, involving one or more vessels. CAE can be found in up to 5% of angiographic and in 0.22–1.4% of autopsy series. The etiology of CAE can vary, with atherosclerosis accounting for 50% of cases. Most cases of CAE are asymptomatic and are found incidentally on CAG; however, clinical presentation can include angina pectoris, myocardial infarction, and even sudden cardiac death. Though CAE account for one few cases of acute coronary syndromes, these patients need monitoring and oral anticoagulation with warfarin to prevent subsequent ischemic events.

Implication to clinical practice: Though there is decreased enthusiasm for thrombus aspiration after the recent TOTAL trial, carefully selected patients still benefit from thrombus aspiration as in this patient. This case also highlights the effectiveness of intracoronary streptokinase in management of such patients with huge thrombus burden during PCI.

Coronary artery pseudoaneurysm: A rare case of coronary stent infection

L. Satish *, Sanjeev Sanghvi
Room No 76, New PG Hostel, MDM Hospital Campus, Shastri Nagar, Jodhpur, Rajasthan 342003, India

Introduction: Only a few cases of a coronary stent infection have been described in literature. We present a case of 51-year-old patient who underwent everolimus coated stent implantation in proximal left anterior descending artery (LAD), who later developed infected pseudoaneurysm at proximal part of LAD stent, a rare presentation of coronary stent infection. He later underwent urgent coronary artery bypass with repair of aneurysm following which patient recovered and now doing well.

Case report: A 51-year-old patient presented to us with history of typical ischemic chest pain since 2 days and ECG done showed T wave inversions from V1 to V5 and troponin I was positive. Patient was diagnosed to have non ST elevation myocardial infarction and was put on anti ischemic therapy. Despite treatment patient was not relieved of chest pain and hence patient was advised coronary angiography (CAG). CAG done showed 90% proximal LAD lesion. PTCA with everolimus stent implantation was done from proximal to mid LAD. Patient tolerated the procedure well. Later patient developed high-grade intermittent fever on postoperative day one. Patient was investigated for fever, which revealed leukocytosis with predominant neutrophilia. Blood culture was sent and patient was stated on broad spectrum antibiotics. Further patient developed severe chest pain on postoperative day 3. But despite treatment patient continued to have anginal pain, hence a check CAG was planned. CAG done this time showed patent LAD stent with pseudoaneurysm at its proximal part with slow flow distally. By this time, the blood culture report came which showed growth of staphylococcus. Hence, diagnosis of infected pseudoaneurysm was made and patient was sent for urgent CAGB. Patient underwent successful CAGB with repair of aneurysm and removal of stent. The aneurysm removed showed discharge of pus, which confirmed that in fact it was an infected pseudoaneurysm. Patient was later discharged with healed wounds and stable hemodynamics. Patient is in regular follow-up and now doing well and 2D echo done recently showed normal LV function with no RWMA.

Discussion: Coronary artery aneurysms after coronary intervention are rare, with a reported incidence of 0.3–6.0%, and most “aneurysms” are in fact pseudoaneurysms rather than true aneurysms. Coronary angiography is the gold standard for the diagnosis of coronary aneurysms, which are defined as a luminal dilation 50% larger than that of the adjacent reference segment. Expanding pseudoaneurysms, infected aneurysms, and large, chronic (and expanding) aneurysms with symptoms should be treated. Immediate surgical therapy is needed for any confirmed infected aneurysm in this case.

Clinical implication: Infected coronary artery pseudoaneurysms after DES implantation is a rare complication. It has to be identified early and treated by immediate surgical therapy. Care should also be taken regarding meticulous handling techniques (i.e., washing of gloves and hands, wearing a mask, and minimal handling of catheters and guidewires) and sterilization of the operating room to minimize the risk of bacterial contamination that results in infected aneurysms.