Innovative management of acute stent recoil in the left

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A 71 years old woman with known morbid obesity, dyslipidemia, diabetes and hypertension was admitted in emergency department with an acute respiratory distress, high blood pressure and high rate atrial fibrillation with left bundle block branch requiring defibrillation and orotracheal intubation. Serum level of high-sensitivity cardiac troponin and creatinin kinase were high. Echocardiography showed moderate decreased of left ventricle ejection fraction with severe anterior septo apical hypokinesia. After intubation and stabilization of the heamodynamic situation, the patient was admitted to the catheterization laboratory for coronary angiography and revascularization if it’s appropriate. Coronary angiography via right femoral artery showed two vessel diseases with a 90% lesion calcified of left main artery and 50-70% distal lesion of left anterior descending artery (Figure). During the intubation of left main artery, blood pressure dropped severely and impressive ECG modified (Figure) needed 2 mg intra-aortic adrenalin. Depending on heamodynamic compromise and the anatomy of coronary disease, percutaneous transluminal coronary angioplasty (PTCA) with implantation of drug eluting stent (DES) was decided. After the implantation of the DES (4.00x12mm) in the left main we proceeded post dilatation with noncompliant balloon (Pantera Leo 4.5x12 mm). The angiographic control with intravascular ultrasound (IVUS) (Figure) showed under deployment of the stent (recoil). We decided to use the high-pressure balloon (OPN 4.00x15mm) with persistence always of the proximal under deployment the stent. And then we decided to use the renal stent (Hippocampus 5.00x15mm) overlapped with the first stent and it was postdilatated with high-pressure balloon at 35 atm. And the second angiographic control with IVUS (Figure) showed successful deployment of the stent in the ostium of the left main artery. In this case, we think of an atherosclerotic disease of the aorta. This case demonstrates the management of stent recoil in a calcified left main is very complex. Using a renal stent can be a solution in this kind of situation when recoil persists after post dilatation with very high-pressure balloon.

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