medical history included diabetes mellitus, a 50-pack-year smoking history, and endovascular aortic aneurysm repair performed five years earlier. Imaging revealed bilateral SFA chronic total occlusions in the patient, who had Rutherford category 3 peripheral arterial disease. Endovascular revascularization of the right lower extremity was planned. The right popliteal artery was punctured under ultrasound guidance, and a 7-F sheath was inserted. The occlusion was crossed using a retrograde guidewire, followed by angioplasty with a 6×150 mm balloon. Completion angiography demonstrated adequate antegrade flow without any acute complications. Following the procedure, distal pulses were palpable and the patient remained clinically stable; he was subsequently discharged on antiplatelet therapy. Seven days after the procedure, the patient presented to the emergency department with sudden-onset severe pain and rapidly progressive swelling in the right popliteal region. Physical examination revealed a tense and tender swelling in the popliteal fossa. His blood pressure was 140/90 mmHg, heart rate was 75 beats/min, and hemoglobin level was 11.2 g/dL. Doppler ultrasonography and computed tomography angiography demonstrated a 45×60 mm pseudoaneurysm associated with the popliteal puncture site (Figs 1, 2), with active bleeding and a surrounding hematoma. Emergency endovascular treatment was performed with a diagnosis of ruptured popliteal artery pseudoaneurysm. Selective angiography via femoral arterial access demonstrated active contrast extravasation into the pseudoaneurysm sac. A 6×80 mm stent-graft was deployed to completely cover the neck of the pseudoaneurysm (Figs. 3, 4). Completion angiography demonstrated complete exclusion of the pseudoaneurysm, patency of th.e stent-graft, and preserved distal popliteal-tibial flow. During follow-up, the pain and swelling gradually resolved. At the one-month follow-up, the stent-graft remained patent and the pseudoaneurysm sac was completely thrombosed.

Conclusion: Although retrograde popliteal access is an effective approach for SFA chronic total occlusions, it may rarely be complicated by delayed pseudoaneurysm formation and rupture. This complication should be considered in patients presenting with popliteal pain and swelling after the procedure. In patients with suitable anatomy, femoral delivery of a stent-graft represents an effective and minimally invasive treatment option that rapidly controls active bleeding while preserving popliteal artery continuity and distal limb perfusion.

Keywords: Popliteal artery, pseudoaneurysm, retrograde popliteal access, stent-graft, endovascular treatment, vascular complication.

SS–09

Both the Cause and the Solution: Guidewire-Induced Distal Coronary Perforation

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Introduction and Aim: A patient with a history of hypertension, smoking, and a family history of coronary artery disease presented via emergency medical services due to severe chest pain radiating to the left axilla that began today. The patient had no prior history of coronary artery disease, and current medications included losartan 40/12.5 mg and nebivolol 5 mg. The baseline ECG showed sinus rhythm with ST-segment elevation in the inferior leads and T-wave inversions in the anterior leads. Echocardiography revealed an EF of 55%, inferior wall hypokinesia, an interventricular septum of 14 mm, a left atrium of 42 mm, and mild mitral and aortic regurgitation; the inferior vena cava was collapsible, and no pericardial effusion was present. Based on the clinical, electrocardiographic, and echocardiographic findings, acute inferior myocardial infarction was diagnosed, and the patient was immediately transferred to the catheterization laboratory for emergency coronary angiography.

Methods: Coronary angiography demonstrated a normal left main coronary artery (LM). The left anterior descending (LAD) artery showed a 30% stenosis after D1 and a 40% stenosis in the distal segment. The left circumflex (LCX) artery showed a 40% stenosis in the proximal segment and a 60–70% long sequential stenosis in the mid segment. A critical 99% stenosis was identified in the right posterior lateral (RPL) branch of the right coronary artery (RCA). Based on clinical and imaging findings, the RCA lesion was considered the culprit lesion. Using a right radial approach, the RCA was cannulated with a 6F JR4 guide catheter. The RPL and posterior descending artery (PDA) were crossed using Anyreach wires. Percutaneous transluminal coronary angioplasty (PTCA) was performed on the RCA-RPL lesion using a 3.0×12 mm non-compliant (NC) balloon at 12 atm, followed by the implantation of a 3.5×19 mm drug-eluting stent (DES). The stent was post-dilated with a 3.75×12 mm NC balloon.

Results: During the procedure, a guidewire-induced coronary perforation/rupture occurred in the distal branch of the PDA. Balloon tamponade was applied in the proximal PDA using 2.0×20 mm and 2.0×12 mm balloons for 2.5 minutes; however, the extravasation persisted. A Finecross microcatheter was advanced into the perforated distal branch, and a severed Pilot 50 wire was intentionally left in the perforated distal vessel through the microcatheter. The perforated distal branch was successfully occluded via controlled thrombosis. Follow-up echocardiography performed during the procedure showed no pericardial effusion. As the procedure continued after completing the RCA stent post-dilation, stenosis due to plaque shift was observed at the PDA ostium. PTCA was performed on the PDA ostium using a 2.5×15 mm NC balloon, restoring full patency.

Conclusion: In conclusion, the 99% critical lesion in the RCA-RPL region was successfully treated with PCI and stent implantation in a patient presenting with acute inferior myocardial infarction. The procedure was complicated by a guidewire-induced perforation in the distal PDA branch, which was managed via controlled occlusion of the distal vessel, with follow-up echocardiography confirming the absence of pericardial effusion. Additionally, acute PDA ostial plaque shift during the procedure was successfully treated with balloon angioplasty. Beyond the culprit RCA lesion, elective stage PCI or close medical follow-up was planned for the 60–70% long-segment LCX mid-vessel stenosis.

Keywords: Perforation/rupture, balloon tamponade, microcatheter, guidewire.

SS–10

Two Different Outcomes in One Week: RCA Stent Thrombosis, LAD DCB Success

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Introduction and Aim: A patient with a history of diabetes mellitus, hypertension, Parkinson's disease, and dementia, who had previously undergone stent implantation to the right coronary artery (RCA), was evaluated for chest pain. During elective coronary angiography, the lesion in the RCA was crossed with a guidewire, predilated with a 3.5×15 mm non-compliant (NC) balloon, and a 4.0×20 mm drug-eluting stent (DES) was implanted. Successful patency was achieved following post-dilatation with a 4.0×8 mm NC balloon.

Case Report: In the same session, after percutaneous transluminal coronary angioplasty (PTCA) was performed on the left anterior descending (LAD) artery lesion using 1.5×20 mm and 2.5×25 mm NC balloons, treatment was carried out with a 2.75×40 mm drug-coated balloon (DCB) at 7 atm pressure for 80 seconds. A successful angiographic result was obtained in the LAD at the end of the procedure. Approximately one week after the elective percutaneous coronary intervention (PCI), the patient presented to the emergency department with pronounced nausea, vomiting, and chest pain. Upon detecting changes consistent with an inferior myocardial infarction on the electrocardiogram, the patient was taken to the catheterization laboratory for emergency coronary angiography. Coronary angiography revealed stent thrombosis in the proximal RCA. The left main coronary artery was normal. In the LAD, the previously implanted proximal stent was patent, but a dissec-

tion was observed distal to the stent. The left circumflex (LCX) artery was dominant and showed widespread coronary artery disease. Notably, no significant early restenosis was observed in the LAD segment previously treated with the DCB. The thrombosed segment in the RCA was crossed with a guidewire. Sequential predilations were performed at high pressures reaching 20–26 atm using 2.5×12 mm, 2.75×20 mm, 3.0×12 mm, 4.0×12 mm, and 4.0×6 mm NC balloons. Following antithrombotic treatment, a 3.5×16 mm DES was implanted. Finally, successful angiographic patency was achieved after post-dilatation with a 4.0×6 mm NC balloon at 26 atm pressure. The most striking finding in this case is the thrombosis of the newly implanted RCA stent within just one week, clinically presenting as an inferior myocardial infarction. Stent thrombosis is a multifactorial complication. Mechanical factors such as under-expansion, malapposition, residual dissection, and complex coronary anatomy can play a major role, alongside the disruption of antiplatelet therapy. The patient experiencing severe nausea and vomiting prior to the myocardial infarction suggests that oral antiplatelet therapy compliance or gastrointestinal absorption may have been impaired. Failure to achieve adequate platelet inhibition, particularly in the early period post-stent implantation, poses a significant risk for stent thrombosis.

Conclusion: The second notable feature of this case is that the LAD segment, where a different revascularization strategy was applied in the same patient, remained patent in the early period. One of the major advantages of DCB therapy is the delivery of the antiproliferative drug to the vessel wall without leaving a permanent metal implant behind. The absence of early significant restenosis in the DCB-treated segment makes this case compelling in terms of early angiographic outcomes of DCB therapy versus stent thrombosis.

Keywords: DCB, stent thrombosis, nausea.

SS–11

A Challenging Pair: Management of an Ostial Lesion and Spontaneous Atherosclerotic Coronary Artery Dissection

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Introduction and Aim: Unlike spontaneous coronary artery dissection, coronary artery dissections developing on the background of atherosclerotic coronary artery disease are associated with plaque burden and structural abnormalities of the vessel wall. Ostial coronary lesions also represent a technically challenging subgroup in percutaneous coronary interventions (PCI) due to their anatomically critical location, involvement of the vascular orifice and proximal segment, requirement for precise stent deployment, and difficulty in achieving optimal lesion coverage. Herein, we present the management of a case presenting with both an ostial lesion and an atherosclerotic coronary artery dissection.

Case Report: A 56-year-old male patient presented to the emergency department complaining of typical chest pain. Initial electrocardiogram (ECG) revealed no ischemic changes, and cardiac troponin levels were negative. The patient underwent coronary angiography (CAG) with a preliminary diagnosis of unstable angina pectoris. CAG demonstrated non-critical plaques in the left anterior descending artery (LAD), an ostial 70–80% stenosis in the first diagonal branch (D1) (Medina 0-0-1 lesion), followed immediately by a coronary dissection line approximately 20 mm in length. Since the patient was hemodynamically stable, the lesion was an ostial diagonal stenosis, and distal TIMI 3 flow was preserved, conservative medical management was decided for both the coronary dissection and the ostial lesion. A follow-up CAG was scheduled to evaluate complete healing of the coronary dissection. During a two-week period of medical follow-up, the patient remained symptomatic, and a follow-up CAG was performed. Angiography showed no regression in the dissection line and persistent stenosis. Due to persistent symptoms and an unhealed dissection, inverted provisional PCI from the LAD to D1 was planned. Percutaneous transluminal coronary angioplasty was initially performed from the LAD to D1 using a 2.75x25 mm semi-compliant balloon, followed by the implantation of a 3.0x32 mm drug-eluting stent (DES). Finally, the proximal optimization technique was performed at the proximal segment of the stent using a 4.0x8 mm non-compliant balloon. Post-procedural full patency (TIMI 3 flow) was successfully achieved. The patient was discharged asymptomatically with optimized medical therapy.

Conclusion:In atherosclerotic coronary artery dissections, particularly in cases accompanied by ostial lesions, treatment strategy should be individualized by considering both the clinical status and anatomical features. Selected patients who are stable with preserved distal flow and no persistent ischemia or symptoms may be followed conservatively; however, revascularization should be considered in the presence of ongoing ischemia, refractory symptoms, or high-risk anatomy. While intravascular ultrasound (IVUS) or optical coherence tomography (OCT) provides significant contributions to determining the treatment strategy by evaluating the extent of dissection and plaque morphology, the intervention must be meticulously planned due to the technical challenges associated with ostial lesions.

Keywords: Coronary artery dissection, conservative management, delayed stenting, coronary angiography, follow-up.

SS–12

Staged Percutaneous Revascularization of High-Risk Multivessel Coronary Artery Disease Involving Chronic Total Occlusion and a Complex Bifurcation Lesion: A Case Report

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Introduction and Aim: Although coronary artery bypass grafting (CABG) is the guideline-endorsed treatment for multivessel coronary artery disease in the presence of chronic total occlusion (CTO), staged percutaneous coronary intervention (PCI) represents an effective alternative in patients who decline surgery or are unsuitable surgical candidates. In this case, we present successful percutaneous revascularization completed in three sessions in a patient with extensive, high SYNTAX score (39) coronary artery disease involving the left main coronary artery (LMCA), left anterior descending artery (LAD), circumflex artery (Cx), and right coronary artery (RCA), who declined CABG.

Case Report: A 68-year-old male patient's myocardial perfusion scintigraphy (MPS) performed prior to angiography revealed a fixed defect (scar) in the apex, apical anterior wall, inferior wall apical-mid-basal segments, and mid-basal inferoseptal wall, with no significant findings in favor of ischemia. Coronary angiography demonstrated 70–80% stenosis in the distal LMCA, 100% occlusion (CTO) of the LAD, 70–80% stenosis in the first diagonal branch (D1), 80–90% stenosis in the Cx, 80–90% stenosis in the third obtuse marginal branch (OM3), and 80–90% stenosis in the RCA. As the patient, for whom CABG was recommended, declined surgery, staged PCI was planned. In the first session, the RCA ostium was engaged, and the critical lesion was crossed with a floppy guidewire; near-complete patency was achieved following predilation with a 3.5×15 mm non-compliant (NC) balloon and implantation of a 4×20 mm drug-eluting stent (DES). In the second session, as the Cx lesion could not be crossed with a floppy wire, it was crossed with a Fielder XT-R wire under microcatheter support; following exchange for an extra-support wire and subsequent balloon predilations, a 2.75×38 mm DES was implanted, and post-dilation was performed with a 2.75×23 mm NC balloon. In the patient, who was considered at high surgical risk, the LAD CTO segment was crossed with various wires under microcatheter support during the third session, and the lesion was assessed with intravascular ultrasound (IVUS) following predilation. A 2.25×20 mm and a