

ing-balloon dilatation with 3.0×12 mm and 3.5×12 mm non-compliant balloons, final POT was performed using a 5.0×8 mm non-compliant balloon (Video 1). The patient was prescribed dual antiplatelet therapy with acetylsalicylic acid and clopidogrel. Follow-up coronary angiography was planned for 6 months later. However, approximately 5 months later, the patient died following the development of hemoptysis.

Conclusion: Aorto-ostial stent protrusion can significantly complicate re-entry into the stent lumen, particularly during complex bifurcation procedures. The Side Flap technique may offer an alternative solution in selected cases where re-entry into the original stent lumen is not feasible. This case demonstrates that aorto-ostial stent protrusion in complex LMCA-LAD-CX bifurcation anatomy can be successfully managed using the Side Flap technique in combination with the TAP technique.

Keywords: Excessive ostial stent protrusion, Side Flap technique, aorto-ostial lesion.

SS-19

Conservative Management of Dunning Class III Aortocoronary Dissection Introduction and Aim

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Introduction and Aim: Iatrogenic left main coronary artery (LMCA) dissection with retrograde extension into the ascending aorta is a rare but potentially catastrophic complication of coronary angiography and percutaneous coronary intervention (PCI). According to the Dunning classification, Class III dissections (>40 mm extension into the ascending aorta) are generally considered the most severe form and have traditionally been associated with emergency surgical repair. However, recent evidence suggests that conservative management may be feasible in carefully selected hemodynamically stable patients after successful sealing of the coronary entry site. We present a rare case of Dunning Class III iatrogenic aortocoronary dissection that was successfully managed with PCI followed by conservative medical therapy.

Case Report: A 68-year-old man with a history of anterior myocardial infarction one month earlier was admitted for elective PCI of the left circumflex artery (LCx). The left coronary system was engaged with an EBU guiding catheter, and baseline angiographic images were obtained. Following predilatation of the target LCx lesion, angiography unexpectedly demonstrated an iatrogenic LMCA dissection extending to the aorto-ostial region. The left anterior descending artery (LAD) was immediately wired, and a stent was implanted from the LMCA to the LAD, completely covering the LMCA ostium and successfully sealing the entry point of the dissection. Control angiography demonstrated disappearance of contrast staining extending into the aortic root. However, a residual dissection flap remained confined between the LCx ostium and the previously implanted LCx stent. The LCx was rewired and a two-stent bifurcation strategy using the TAP (T-stenting and Small Protrusion) technique was successfully performed, resulting in complete stenting of the LMCA bifurcation without residual dissection or angiographic complications. The patient was admitted to the coronary intensive care unit for close monitoring. Transthoracic echocardiography showed a left ventricular ejection fraction of 45–50% without pericardial effusion. During follow-up the patient developed back pain, prompting computed tomography (CT) aortography, which demonstrated an extensive peri-aortic hematoma extending from the coronary ostium to the aortic arch and proximal left subclavian artery, consistent with Dunning Class III aortocoronary dissection. Cardiovascular surgery consultation recommended conservative management because the patient remained hemodynamically stable without ongoing ischemia. Strict blood pressure and heart rate control were achieved and laxative therapy was added to minimize Valsalva-related increases in intrathoracic pressure. No electrocardiographic changes,

hemodynamic deterioration, electrical instability or pericardial effusion developed during hospitalization. Follow-up CT aortography on Day 4 demonstrated regression of the peri-aortic hematoma, while repeat imaging on Day 20 confirmed complete resolution. The patient was discharged uneventfully on hospital Day 21 with outpatient follow-up.

Conclusion: This case demonstrates that even Dunning Class III iatrogenic aortocoronary dissection can be successfully managed without surgery when the coronary entry site is promptly sealed with PCI and the patient remains clinically stable. Careful patient selection, multidisciplinary decision-making, strict anti-impulse medical therapy and serial CT imaging may provide a safe alternative to surgical intervention in selected cases. This rare case contributes to the limited literature supporting conservative management of extensive iatrogenic aortocoronary dissections.

Keywords: Iatrogenic aortoostial dissection, dunning class III, Left main coronary artery, PCI, conservative management.

SS-20

Diagnostic Pitfall in Hypotension After Complex PCI: Incidental Pericardial Effusion and Femoral Access-Site Perforation

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Introduction and Aim: Acute hypotension following percutaneous coronary intervention (PCI) requires the prompt exclusion of potentially life-threatening complications, including coronary perforation, cardiac tamponade, acute stent thrombosis, and vascular access-site complications. We present a case of hemodynamic deterioration after complex PCI in which a concomitantly detected pericardial effusion created a diagnostic challenge, while the actual cause was a perforation at the external iliac artery–common femoral artery (CFA) junction that was successfully managed by an endovascular approach.

Case Report: A 58-year-old man with hypertension and established coronary artery disease was admitted for elective PCI. He had previously undergone PCI of the left anterior descending artery (LAD) and circumflex artery (Cx) for an acute coronary syndrome in December 2025. During the index procedure, a 4.0×24 mm drug-eluting stent (DES) was implanted from the left main coronary artery extending into the LAD, a 3.5×18 mm DES was implanted in the proximal Cx, and overlapping 3.0×35 mm and 3.5×43 mm DESs were deployed from the distal right coronary artery to the ostium. Following the procedure, the patient was transferred to the coronary intensive care unit for monitoring. After removal of the right femoral arterial sheath, the patient developed tachycardia and hypotension. Bedside echocardiography demonstrated a 1-cm pericardial effusion. Given the recent complex PCI, coronary perforation with hemopericardium was initially considered the leading diagnosis, and the patient was urgently transferred back to the catheterization laboratory. However, serial blood gas analyses also demonstrated a progressive decline in hemoglobin levels, raising concern for ongoing hemorrhage. Repeat coronary angiography via the left femoral artery demonstrated patent coronary stents without evidence of coronary perforation. Subsequently, the right iliofemoral arterial system was assessed using a crossover approach from the left femoral artery. Digital subtraction angiography revealed marked active contrast extravasation consistent with arterial perforation at the external iliac artery–CFA junction. A 10×37 mm BeGraft covered stent was implanted across the perforation site. Final angiography demonstrated complete cessation of contrast extravasation with preserved distal arterial flow. Following the intervention, the patient's blood pressure and heart rate normalized, and hemoglobin levels stabilized. Serial echocardiographic examinations showed no significant progression of the pericardial effusion, confirming that it was not responsible for the hemodynamic deterioration.

Conclusion: The detection of pericardial effusion in a patient who develops acute hypotension after complex PCI may readily direct diagnostic attention

toward coronary perforation and cardiac tamponade. Nevertheless, a concomitant decline in hemoglobin should prompt immediate consideration of vascular access-site complications and retroperitoneal bleeding, particularly when femoral access has been used. After coronary complications were excluded, crossover angiography enabled rapid identification of the bleeding source, and endovascular exclusion with a covered stent achieved prompt and effective hemostasis without the need for surgical intervention.

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Spontaneous Type-A Aortic Dissection in an Adolescent Patient

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Introduction and Aim: Acute aortic dissection is an emergency cardiovascular pathology with a mortality rate reaching up to 50% within the first 48 hours if not intervened in a timely and accurate manner. Patients frequently present to the emergency department with sudden-onset, sharp/tearing chest pain in the interscapular region or anterior chest wall. However, it may also present atypical presentations such as neurological symptoms, myocardial infarction, or dysphagia. Etiological factors typically include hypertension, connective tissue disorders, bicuspid aortic valve, congenital anomalies, and a positive family history. In this report, we present a case of spontaneous Type-A aortic dissection in a 17-year-old patient who presented with crushing chest pain mimicking acute coronary syndrome, with no known risk factors or predisposing etiological causes.

Case Report: A 17-year-old male patient presented to the emergency department with crushing chest pain that had been ongoing for approximately 30 minutes. The patient had no known chronic diseases or history of trauma, and no marfanoid features were observed on physical examination. His initial 12-lead electrocardiogram (ECG) demonstrated ST-segment elevation and hyperacute T waves in the precordial leads (Fig. 1). Cardiac troponin levels at presentation were negative.

On bedside transthoracic echocardiography (TTE), the aortic root diameter was measured as 5.5 cm, and an intimal dissection flap was observed. To confirm the diagnosis, a chest Computed Tomography (CT) angiography was promptly performed, confirming a Type-A aortic dissection (Fig. 2). The patient was immediately transferred to the cardiovascular surgery operating room, where surgical intervention was successfully performed. Rheumatological and genetic panels performed for etiology revealed no evidence of connective tissue disease. On post-operative follow-up TTE, the aortic root diameter was measured at 4 cm, and the patient was discharged in good health (uneventfully).

Conclusion: Aortic dissection typically develops in older age groups and against the background of an underlying cardiovascular or congenital risk factor. However, given the high risk of mortality, aortic dissection must always be kept in mind in the differential diagnosis of chest pain in young patients presenting with atypical ECG findings, even in the absence of obvious underlying risk factors.

Keywords: Aortic dissection, Type-A dissection, spontaneous aortic dissection, young patient.

SS-22

Stent-Balloon System Dislodgement and Intra-Guiding Catheter Stent Deformation in a Calcified Proximal RCA Lesion: A Rare Primary PCI Complication

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Introduction and Aim: During primary percutaneous coronary intervention (PCI), calcified coronary lesions can cause difficulty in balloon and stent delivery, leading to rare but severe mechanical complications. Stent-balloon system dislodgement (detachment), balloon rupture/perforation, and stent deformation within the guiding catheter are extremely rare complications, yet their management is critical. In this case report, we present the dislodgement of a stent-balloon system in a calcified proximal right coronary artery (RCA) lesion and the successful, safe retrieval of the entire system.

Case Report: A 60-year-old male patient presented to the emergency department with typical chest pain ongoing for 30 minutes. His past medical history was unremarkable except for smoking. The initial electrocardiogram (ECG) demonstrated findings consistent with inferior ST-segment elevation myocardial infarction (STEMI), and the patient was urgently transferred to the catheterization laboratory. Coronary angiography was performed using a JR4 guiding catheter to selectively visualize the right coronary artery (RCA). Stenoses of 70% in the proximal segment and 99% in the mid-segment of the RCA were identified. The lesion was crossed with a soft workhorse coronary wire, and predilatation was performed using a 2.0×15 mm PTCA balloon. Subsequently, attempt was made to advance a 3.5×21 mm drug-eluting stent (DES) to the lesion; however, significant resistance was encountered due to the heavily calcified proximal segment. To increase support, a second coronary wire (buddy wire) was placed, and additional predilatation was performed using a 2.5×15 mm PTCA balloon. With this extra support, the stent was advanced to the target lesion area. When attempt was made to inflate the stent balloon, it was observed that the stent failed to expand and contrast extravasation occurred from the balloon system. Suspecting balloon perforation and system failure, retrieval of the stent was attempted. However, the proximal portion of the stent became caught at the tip of the guiding catheter, preventing complete retraction into the catheter. Consequently, the stent-balloon system was retracted in a controlled manner up to the tip of the guiding catheter, and the entire assembly (guiding catheter, wire, balloon, and stent) was retrieved en bloc from the body. *Ex vivo* examination revealed that the proximal portion of the stent had detached/dislodged from the delivery balloon, the balloon had suffered perforation, and the stent had deformed the tip of the guiding catheter (Fig. 1). The RCA was re-cannulated using a new guiding catheter and a new coronary wire. After re-crossing the lesion, sequential balloon dilatations were performed, and a new drug-eluting stent was successfully implanted. Final angiography demonstrated restored TIMI-3 flow, and the procedure was completed without further complications.

Discussion: Calcified coronary lesions represent one of the most challenging anatomical factors impeding stent delivery. During stent passage through highly resistant segments or in the setting of inadequate lesion preparation, increased mechanical stress can cause stent deformation, balloon perforation, and, rarely, stent-balloon system dislodgement. In this case, severe resistance encountered in the calcified proximal RCA segment exerted excessive mechanical load on the device assembly. The subsequent balloon perforation and stent detachment are among the rarely reported complications. The critical aspect of this case was the controlled withdrawal of the entire stent system without allowing it to embolize freely within the coronary circulation. Thanks to this approach, a potentially fatal complication was successfully prevented.

Conclusion: Adequate lesion preparation and the utilization of appropriate support strategies are of paramount importance in reducing device-related complications in calcified coronary lesions. In rare complications such as stent-balloon system dislodgement, controlled retrieval of the system followed by re-intervention using an alternative strategy can ensure a safe clinical outcome.

Keywords: STEMI, right coronary artery, calcified lesion, percutaneous coronary intervention, stent complication, balloon perforation, stent dislodgement.