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Summary: Recurrent Coronary Events in a High-Risk Female Post-PCI

Patient: 55-year-old female with significant CV risk factors: >30 years smoking (20-40 cigs/day), >20 years alcohol abuse, Grade 3 Hypertension (highest BP 200/120 mmHg), hyperlipidemia.

Initial Presentation (May 2020): Unstable Angina. PCI performed: Cutting balloon + 3.5x30mm DCB (SeQuent Please) to LAD. Discharge medications included statin (LDL-C: 2.81 mmol/L -> target not stated).

1st Recurrence (June 2021): ACS. PCI: Pioneer stent + 2.5x26mm DCB (SeQuent Please) to LAD using a scoring balloon (Lacrosse). LDL-C improved post-discharge (1.35-1.59 mmol/L at 6m).

2nd Recurrence (Aug 2022): Unstable Angina. PCI: Complex intervention using NC balloon, scoring balloon (Lacrosse), cutting balloon, and OCT guidance prior to deploying a 3.0x40mm Bingo stent. Predilation OCT assessment performed.

Key Ongoing Issues:

Recurrent Events: Despite two prior PCIs (primarily DCB based), patient presented with UA/ACS twice within ~2 years.

Risk Factor Control:

Hypertension: Long-standing, severe (Grade 3, Very High Risk). History of poor BP monitoring/adherence.

Hyperlipidemia: Significant LDL-C fluctuations. Documented non-adherence to statin therapy (LDL-C rose to 3.12 mmol/L after 2-month cessation). Achieved LDL-C ~1.5 mmol/L on therapy.

Lifestyle: Persistent heavy smoking and alcohol use.

Interventions & Adjunctive Therapies: Utilized various techniques: cutting balloon (Vesscide), scoring balloon (Lacrosse), DCB (SeQuent Please), stent implantation, OCT for lesion assessment/optimization. Alirocumab (PCSK9i) initiated after LDL-C elevation due to statin cessation.

Discussion Points:

Potential causes for recurrence: Procedural factors (dissection/hematoma?), medication issues (resistance/non-adherence), inadequate risk factor control (esp. LDL-C despite periods of control, hypertension, persistent smoking/alcohol).

Role of Alirocumab: Should it be continued long-term despite achieving LDL-C ~1.5 mmol/L? (Standard dosing: 75-150 mg SC every 2 weeks).

Core Message: This case illustrates recurrent coronary events in a very high-risk patient despite multiple PCI procedures (including DCB), highlighting the critical importance of aggressive and sustained management of risk factors (hypertension, hyperlipidemia, smoking cessation, alcohol cessation) and medication adherence post-PCI. PCI alone could hardly be the cure for the underlying atherosclerotic disease process.