Very Late Stent Thrombosis With Restenosis and Coronary Spasm in a Young Cancer Survivor

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Trinity Health Saint Francis Research Day

Background

Cisplatin-treated testicular cancer survivors have increased cardiovascular risk.[1,2] Recurrent myocardial infarction (MI) warrants assessment of both stent failure and vasomotor abnormalities.

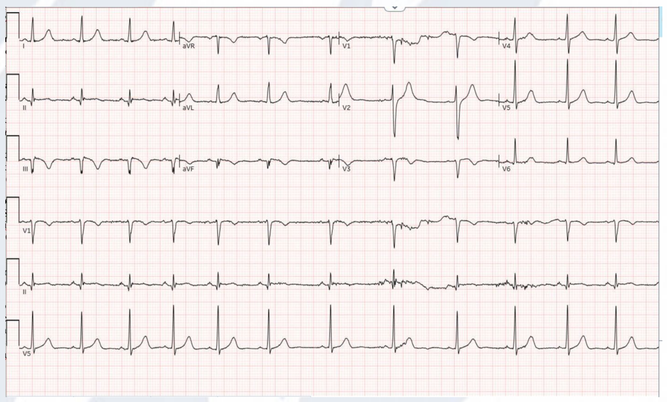
Case presentation

35-year-old man in remission after orchiectomy and cisplatin-containing chemotherapy for testicular embryonal carcinoma.

Right coronary artery (RCA) stent 6 years earlier during MI. He smoked 0.5 pack/day and took aspirin inconsistently.

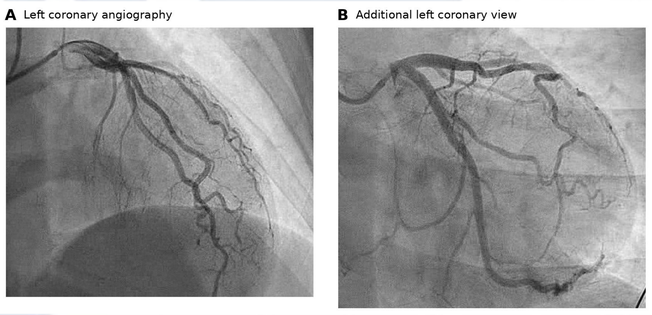
Inferior STEMI with ongoing chest pain. hs-troponin I >60,000 ng/L.

Figure 1. Presentation ECG



Inferior Q waves and T-wave inversions in III and aVF. No prior tracing was available for comparison.

Figure 3. Left coronary angiography



Two views show no apparent obstructive left coronary lesion.

Coronary angiography

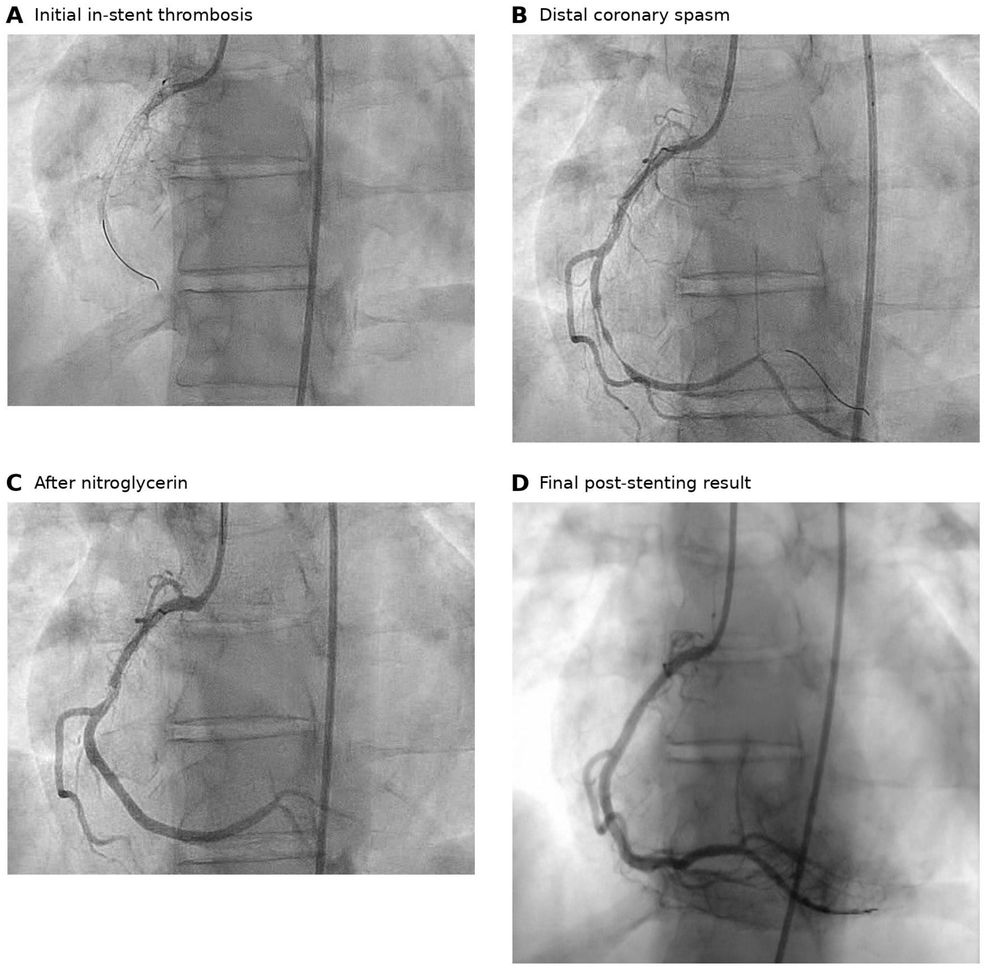


Figure 2. A: Initial thrombotic RCA stent occlusion. B: Distal narrowing during intervention. C: Increased caliber after nitroglycerin. D: Final result after staged stenting, with TIMI-3 flow.

Conclusion

Very late stent thrombosis may require treatment of multiple coexisting mechanisms. Cancer survivors with prior MI need sustained secondary prevention after remission.

Selected references

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Management

Initial reperfusion: Balloon angioplasty and thrombectomy for 100% thrombotic RCA stent occlusion. Intracoronary nitroglycerin improved distal narrowing.

Staged treatment: Heparin and eptifibatide preceded next-day intravascular ultrasound (IVUS) assessment of distal edge disease/restenosis.

Definitive PCI: An overlapping 3.5 × 15-mm everolimus-eluting stent treated the distal lesion. A 3.5 × 20-mm paclitaxel-coated balloon treated the proximal stented segment.

Final angiography: No residual stenosis or dissection, with TIMI-3 flow.

Outcome and follow-up

Chest-pain free at discharge, 2 days after stenting. Therapy included aspirin/ticagrelor, atorvastatin, and diltiazem ER 120 mg/day.

Smoking cessation and cardiac rehabilitation were arranged. Longitudinal follow-up was unavailable.

Discussion

Thrombosis, restenosis, and observed spasm coexisted. Intravascular imaging helps define the residual lesion and guide treatment.[3]

Cisplatin exposure is relevant to survivorship risk, but causation in this patient remains unproven. Original oncology records and cumulative dose were unavailable.[1,2]

Narrowing during instrumentation does not establish spontaneous vasospastic angina. Smoking and inconsistent aspirin use were important competing contributors.

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