Complete Heart Block and Pulmonary Oedema Without Chest Pain: Severe Multivessel Coronary Disease in a 70-Year-Old Man

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BACKGROUND

Complete heart block can signal coronary ischaemia even without chest pain. Acute pulmonary oedema may dominate the presentation despite preserved ventricular systolic function. Recognising this atypical combination matters because coronary assessment may change both revascularisation and permanent pacing decisions.

CASE PRESENTATION

A 70-year-old man presented with sudden breathlessness, complete heart block and pulmonary oedema, without chest pain. His history included hypertension, hyperlipidaemia, type 2 diabetes without medication, epilepsy and a previous assessment suggesting systemic lupus erythematosus, a diagnosis disputed by the patient and family. Troponin rose from 85 to 186, and NT-proBNP was approximately 6,000. Intravenous furosemide improved congestion. Echocardiography demonstrated normal biventricular size and systolic function with mild mixed aortic valve disease.

INVESTIGATIONS AND MANAGEMENT

Coronary angiography identified severe three-vessel disease (SYNTAX I score 39). A thrombotic-appearing right coronary artery (RCA) lesion was considered the probable cause of the atrioventricular block. Following multidisciplinary discussion, inpatient RCA percutaneous coronary intervention (PCI) was selected, with staged left anterior descending artery (LAD) intervention planned. The calcified RCA lesion underwent rotational atherectomy, balloon predilatation and placement of two overlapping drug-eluting stents. Intravascular ultrasound showed satisfactory expansion; proximal malapposition was corrected with further balloon dilatation.

OUTCOME

A postprocedural right groin haematoma prompted CT angiography. Initial imaging could not exclude a small pseudoaneurysm, but repeat imaging showed no large haematoma or pseudoaneurysm. Subsequent ECG showed right bundle branch block with left axis deviation, described as trifascicular block. Telemetry recorded occasional ectopy and a missed beat. A permanent pacemaker was not recommended during the admission. He was discharged on lifelong aspirin, one year of prasugrel, atorvastatin, bisoprolol and oral furosemide. Outpatient LAD angiography with planned staged PCI was arranged for approximately two weeks later.

CONCLUSION

This case illustrates that new complete heart block with pulmonary oedema warrants assessment for coronary ischaemia even without chest pain or reduced ejection fraction. Multidisciplinary revascularisation planning, access-site complication assessment and rhythm surveillance shaped management. Residual coronary disease and persistent conduction abnormalities require follow-up. The transient nature of the initial block does not remove the need to reassess symptoms and rhythm after discharge, especially while planned intervention is pending.