IMAGES IN CARDIOLOGY

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Right ventricular myocardial infarction

An 83 year old woman presented with anterior chest pain. Salient features on examination include bradycardia, severe hypotension (74/46 mm Hg), and elevated jugular venous pressure. The ECG showed complete atrioventricular heart block and ST segment elevation in keeping with an infero-posterior and right ventricular myocardial infarction. The patient was intubated, ventilated, had an intra-aortic balloon pump inserted, temporarily paced, and proceeded to have a successful primary percutaneous coronary revascularisation to a proximally occluded right coronary artery (panel A). Pre-revascularisation catheterisation showed classical changes associated with right ventricular failure: a complete abolition of right ventricle systolic pressure generation and a near equalisation of the left ventricular end diastolic, mean right atrial, right ventricular,

pulmonary artery, and pulmonary capillary wedge pressures. Cardiogenic shock was present despite having a left ventricular ejection fraction of 67%. Repeat investigations (panel B) 6 weeks later demonstrated a patent vessel with recovery of right ventricular function and pressures.

This case clearly demonstrates the significant contribution of the right ventricle in normal functioning of the heart and the importance of prompt revascularisation of the right ventricle.

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