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Images in clinical medicine

Intravascular monitoring of successful reperfusion following rescue angioplasty

A 70-year-old woman underwent rescue angioplasty to the right coronary artery following failed thrombolysis (figure 1A). Ischaemic pain and electrocardiographic (ECG) changes resolved when distal vessel patency had been achieved (figure 1B). Five minutes after successful reperfusion, the intra-arterial pressure dropped, without any evidence of vessel occlusion. These changes were episodic and unrelated to respiration. Simultaneous pressure tracings and ECGs showed an intermittent junctional rhythm which coincided with the fall in blood pressure (figure 2). This figure demonstrates two points. Firstly, the important contribution of atrial systole to cardiac output is demonstrated by the fact that sinus beats were accompanied by a 20–30 mmHg rise in blood pressure compared with junctional beats. Secondly, this case also demonstrates that hypotension during alternative reperfusion strategies such as thrombolysis, may be a marker of success rather than an unfavourable reaction to the strategy used.

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Figure 1 (A) Occluded right coronary artery; (B) patent right coronary artery after percutaneous transluminal coronary angioplasty and stent

Figure 2 Aortic pressure: S, sinus beats; J, junctional beats

Accepted 21 January 1998