symptoms, more likely to be of South Asian origin and more likely to have a normal ECG than those thought to have angina.

Although these results are disturbing, they are not altogether surprising. Experienced clinicians will immediately recognise that this varied group of individuals will represent a complex mix of patients with milder disease, some with type 2 diabetes, some with microvascular angina and some in whom the ancient art of exercise testing and clinical assessment missed more serious disease. Some would have had symptoms that were entirely benign from a cardiovascular standpoint.

Overall, the non-cardiac group had lower standardised mortality ratios than the general population, but higher CHD standardised mortality ratios in those ≤ 65 years of age.

IMPLICATIONS FOR SERVICE DESIGN

What is clear is that rapid-access clinics provide a good way of identifying people at higher risk. Such patients might benefit from a more interventional approach to their care, whether by aggressive secondary prevention or coronary intervention. For those in whom the initial assessment suggests a non-cardiac cause, it would seem reasonable to rely on this verdict in older people (those ≥ 65 years of age), but in younger patients, a second line of diagnostic assessment might be justifiable using some type of perfusion imaging.

In conclusion, the rapid-access chest pain clinic is a model of care that has contributed enormously to the overall improvements brought about by clinicians in England under the banner of the NSF for CHD. Further attention should be focused on those in whom the initial assessment suggests a non-cardiac cause of the initial symptoms.

Competing interests: None.

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IMAGES IN CARDIOLOGY

A post-infarction myocardial sinus

A 67-year-old Chinese man with a history of hypertension, diabetes mellitus and hyperlipidaemia was admitted for coronary angiographic study. Two years ago, he had an episode of acute myocardial infarction, for which he was treated by intravenous thrombolytic therapy, followed by percutaneous coronary intervention with stent implantation of the left anterior descending coronary artery (LAD).

He had increasing exertional dyspnoea and effort angina. The electrocardiography showed Q wave formation associated with ST segment elevation over the V_{2-4} leads. Coronary angiographic study showed that there was no in-stent stenosis, and that the blood flow of the LAD was normal. Interestingly, there was a myocardial sinus (panel A, arrowhead) measuring $13.5 \times 7.7 \times 7.2$ mm in size, located in the anterior-apical wall, with profuse feeding arteries from the LAD and its branches. During the diastolic phase, the cine-angiogram revealed two tiny exit holes from the sinus, with ejecting blood flow into the left ventricular (LV) cavity (panel A, arrows). Under cine-angiographic study, this phenomenon appeared like the firing of two mechanical guns. CT study of the heart clearly demonstrated that this sinus was located at the anterior apical myocardium (panel B, arrowhead). The formation of this myocardial sinus is probably the result of previous myocardial infarction with myocardial necrosis and formation of an intramyocardial cavity with feeding arteries from the LAD. No coronary intervention was undertaken since the feeding arteries of this sinus were originated from many branches of the LAD.

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