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The authors' reply

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Featured correspondence

side branch) treatable with percutaneous coronary intervention with a favourable outcome.^{4,5} The limited area of ischaemia has been proposed as the basis for the discordance between the ST and T vectors.

Particular subtlety is recommended when introducing new observations in the scientific community.

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The authors’ reply: With interest we read the comment by Eskola and colleagues¹ on our systematic observation of a characteristic ECG pattern associated with acute and persistent occlusion of the proximal left anterior descending (LAD) artery.² The pattern of “hyperacute T waves” has been described before, but has invariably been described previously as a transient phenomenon associated with anterior ischaemia, but not with persistent LAD occlusion. With careful serial observation and simultaneous coronary angiography, we have shown, in contrast to previous reports, that these ECG changes may be associated with persistent LAD occlusion.

We are grateful for the reference by Dressler and Roesler,³ which was overlooked by us. Indeed, in the report by Dressler and Roesler,³ the ECG pattern of case number 4 recorded 3 h after the onset of symptoms is very similar to our description, and the clinical history and subsequent follow-up ECG strongly suggest that this patient had persistent LAD occlusion instead of transient LAD occlusion (see fig 1). In the second report, Sclarovsky *et al*⁴ published clinical and angiographic data on 21 patients

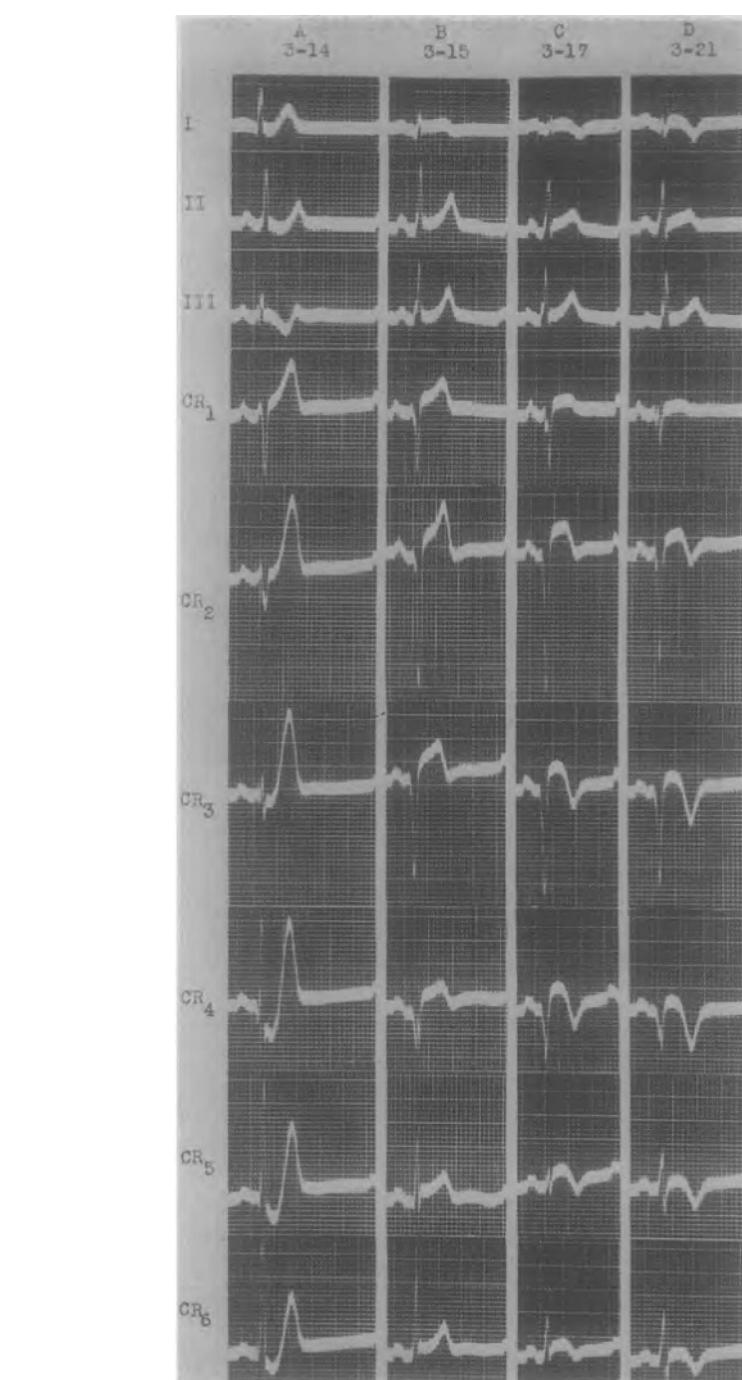


Figure 1 ST-segment depression and peaked, positive T waves followed by loss of R wave and inverted T waves one day later. With permission from the *American Heart Journal*.

presenting with precordial ST-segment depression and peaked, positive T waves. Importantly, the ECG pattern was described as a transient feature in that study and did not result in myocardial necrosis in over 60% of the patients. In patients with elevated cardiac enzymes, the investigators observed a transition to overt ST-segment elevation on evolving ECG. In all but one patient, a non-occlusive stenosis

of the LAD artery was observed during coronary angiography.

We would like to emphasise three pivotal observations described in the current issue of this journal,² which sharply contrast with the above-mentioned reports. We described an ECG pattern of precordial J-point depression and tall, positive T waves that remained unchanged from first medical contact until arrival at the catheterisa-

tion laboratory and did not convert to overt ST-segment elevation. Furthermore, the majority of our patients showed a total occlusion of the proximal LAD artery and, despite successful primary percutaneous coronary intervention in all cases, had a considerable loss of myocardium (median myocardial type creatine kinase 290 µg/l). This seems in contradiction to previous suggestions that ST-segment depression and tall positive T waves in the precordial leads are associated with regional subendocardial ischaemia⁵ and a favourable outcome.⁴ Therefore, we think it is important to emphasise that in some patients, this novel ECG pattern may be associated with persistent proximal LAD artery occlusion and transmural ischaemia of the anterior myocardium. These patients must be distinguished from patients with regional subendocardial ischaemia and be referred for immediate reperfusion therapy.

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CORRECTION

doi:10.1136/hrt.2009.179390corr1

Wackers J. Chest pain in the emergency department: role of cardiac imaging. The author's reply. *Heart* 2009;**95**:1802. In the third paragraph, the first sentence should read "I believe though that there is a place for exercise ECG in the evaluation of patients in an ED chest pain centre (CPC)." The journal apologises for the error which has been corrected online.



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