Continuous ST/T wave monitoring during an acute coronary syndrome presentation in patients with the Coronary Slow Flow Phenomenon (CSFP)

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Background: The coronary slow flow phenomenon (CSFP) is a coronary microvascular disorder that typically presents as an acute coronary syndrome and is characterised by delayed vessel opacification on angiography in the absence of obstructive coronary artery disease. This study compared the frequency of the ST segment (STs) and T wave (Tw) change during continuous ST/T wave monitoring in healthy controls and patients with the CSFP.

Method: Twenty consecutive patients admitted to the coronary care unit with an acute coronary syndrome, who had angiographic evidence of the CSFP and suitable continuous ST/T monitoring for at least 4 h were studied. The findings were compared with 20 healthy controls with no history of cardiac disease or chest pain who underwent 4 h of continuous ST/T monitoring. Clinically significant STs change was defined as ≥1 mm change in amplitude of the STs in ≥2 contiguous leads compared to baseline ECG. Significant Tw change was defined as ≥1 mm change in amplitude of Tw in ≥2 contiguous leads.

Results: Amongst the 20 CSFP, 4 patients (20%) had significant STs change and 17 (85%) had significant Tw changes. In comparison, none of the healthy controls had STs change and only one (5%) had Tw changes. Significant STs change and 17 (85%) had significant Tw changes. Amongst the 20 CSFP, 4 patients (20%) had significant STs change and 17 (85%) had significant Tw changes. In comparison, none of the healthy controls had STs change and only one (5%) had Tw changes.

Conclusion: Most patients with the CSFP have transient ST/T wave changes consistent with myocardial ischaemia during an acute coronary syndrome presentation.