Increase of sympathetic nervous in patient with vasospastic angina

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The pathogenesis of vasospastic angina remains incompletely elucidated. Among multiple mechanisms, abnormalities in the autonomic innervation have been underscored. As vagal withdrawal can act as a trigger for spontaneous coronary spasm, changes in sympathetic activity have also been suggested as individual or combined risk factors for vasospastic angina. Previous studies based on heart rate variability analysis showed both a reduction and an enhancement of sympathetic nervous activity in patients with variant angina, but direct assessment of sympathetic nerve activity, using Muscle sympathetic nerve activity (MSNA) has never been performed.

We evaluated MSNA, haemodynamic parameters (Blood Pressure, Heart Rate etc.) in 22 patients: 11 having definite vasospastic angina confirmed by ergonovine provocation test during angiography and 11 matched patients (for age, gender, body mass index, distribution of risk factors, treatment) with a negative for provocation test. Parameters were collected during baseline and during a mental stress known to further increase MSNA.

At baseline, there were no significant difference between patients with and without spasm for MSNA (56.9±1.78 burst/min vs. 52.0±2.78 burst/min; n.s.) and haemodynamic parameters. During mental stress period, patients with vasospastic angina presented a higher sympathetic nerve activity in comparison to control patients (66.45 burst/min vs. 59.45 burst/min; p<0.05) without significant difference on haemodynamic parameters.

Our results show for the first time a direct evidence of increased sympathetic activity in patients with vasospastic angina, during mental stress. This propensity to further increase MSNA during stress may play a key role in the pathogenesis and occurrence of coronary spasm.

New P2Y12 inhibitors versus clopidogrel in primary percutaneous coronary intervention for STEMI: a meta-analysis

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Conclusions: New generations of multidetector MSCT (64–256-row) have a good negative predictive value for the systematic rule out of significant (>50%) coronary vasculopathy in heart transplant patients and can represent an alternative to CA in patients without significant stenosis. However, safety concerns (contrast agent, radiation) remain in the setting of annual coronary assessment.

Effect of New P2Y12 inhibitors vs. Clopi