>1.5mm were analyzable by MSCT. Table shows the diagnostic accuracy of MSCT compared to CA for the detection of significant CAD.

The total amount of iodine agent was higher with MSCT  $139\pm43$  ml (64-row),  $91\pm9$  ml (256 row) vs.  $56\pm19$  ml (CA) (p<0.05), as the effective dose  $20\pm13$  mS (64-row),  $17\pm6$  mS (256-row) vs.  $6\pm4$  mSv (CA) (p<0.05).

**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.

Type of analysis	n	Stenosis by MSCT	Atheroma by MSCT	Stenosis by CA	Atheroma by CA	Sensitivity %	Specificity %	PPV %	NPV %
Patient-based	84	10	45	8	37	62.5	93.4	50.0	95.9
Vessel-based	252	12	85	8	63	62.5	97.1	41.5	98.8
Segment-based	1131	13	139	10	109	60.0	99.4	46.2	99.6

## 044

#### Increase of sympathetic nervous in patient with vasospastic angina

Jérôme Van Rothem [Orateur] (1), Fabien Despas (2), Nicolas Boudou (1), Angelica Vaccaro (2), Marine Lebrin (2), Didier Carrié (1), Michel Galinier (1), Meyer Elbaz (1), Attul Pathak (1)

(1) CHU Rangueil, Maladies Cardiovasculaires et Métaboliques, Toulouse, France – (2) CHU Rangueil, Inserm U1048, Toulouse, France

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 study 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 heamodynamic 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.

### 045

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

Anne Bellemain-Appaix [Orateur] (1), David Brieger (2), Farzin Beygui (2), Johanne Silvain (2), Guillaume Cayla (2), Olivier Barthélémy (2), Jean-Philippe Collet (2), Gilles Montalescot (2)

(1) Centre de Réadaptation Cardiaque, Vence, France – (2) AP-HP, CHU La Pitié-Salpêtrière, Paris, France

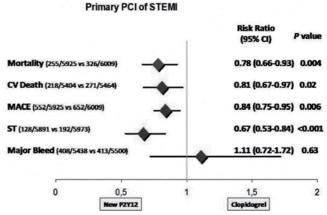
**Purpose:** Primary PCI of STEMI is a highly thrombotic situation where fast and potent platelet inhibition is preferred. No single trial has ever shown a long-term cardiovascular mortality benefit with a P2Y12 receptor antagonist in this situation.

**Methods**. We performed a meta-analysis of randomized trials that compared new P2Y12 receptor antagonists with clopidogrel in Primary PCI of STEMI on mortality, ischemic outcomes and bleeding events. Data at longest

available follow-up from 4 studies were analysed (TRITON STEMI primary PCI, CHAMPION PCI, PLATO STEMI and ERASE MI).

**Results:** 11934 patients were included; 5925 received new P2Y12 inhibitors (1203 prasugrel, 487 cangrelor, 4201 ticagrelor, and 34 elinogrel) and 6009 received clopidogrel (loading dose ranging from 300 to 600mg). Median time from admission to PCI was 5 hours. 58.50% of patients received UFH, 30.33% LMWH, and 8.91% bivalirudin or fondaparinux. 46.66% were treated by additional antiGpIIbIIIa. All patients received aspirin. New P2Y12 inhibitors significantly reduced MACE from 10.85% to 9.32% (p=0.006), any death from 5.43% to 4.3% (p=0.004), CV death from 4.96% to 4.03% (p=0.02), and stent thrombosis from 3.21% to 2.17% (p<0.001). Strokes were increased from 1.11% to 1.59% (p=0.02). TIMI major (from 7.51% to 7.50%, p=0.63) or TIMI major+minor bleeding (from 4.96% to 5.98%, p=1) were not different between the two groups (**Figure 1**).

**Conclusion:** In comparison with clopidogrel, new P2Y12 inhibitors significantly reduce mortality in primary PCI of STEMI with no increase in bleeding.



Effect of New P2Y12 inhibitors vs. Clopi

### 046

Change over fifteen years time of the reperfusion strategies of acute myocardial infarction: insights from the MIRAMI registry

Ismail Ghrissi [Orateur] (1), Wiem Selmi (1), Fatma Ben Amor (1), Z Dridi (1), Ayoub Ghrairi (1), Semi Bouraoui (1), Amine Hdiji (1), Meriem Khrouf (1), Samer Hamayel (1), Abdennaim Hajlaoui (1), Fethi Betbout (2), Habib Gamra (1)

(1) Hôpital Universitaire Fattouma Bourguiba, Cardiologie, Monastir, Tunisie – (2) Hôpital Universitaire Fattouma Bourguiba, Monastir, Tunisie

**Background:** Management of ST elevation myocardial infarction (STEMI) is mainly based on reperfusion therapy either by thrombolysis or primary angioplasty (PAMI). However, many patients (pts) do not receive this therapy