

### 259 Incidence, predictors, and prognostic role of complications occurring during intracoronary provocative test with acetylcholine in patients with myocardial ischaemia and non-obstructive coronary arteries

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**Aims:** Coronary provocative test with acetylcholine (ACh) is of utmost importance and increasingly used in patients with myocardial ischaemia and non-obstructive coronary arteries. However, data on safety, predictors, and prognostic role of complications during intracoronary provocative testing are scarce. We aimed at assessing the safety of ACh provocative test in patients with myocardial ischaemia and non-obstructive coronary arteries. Moreover, we evaluated the predictors and the prognostic implications of complications occurring during the provocative test.

**Methods and results:** We prospectively enrolled consecutive patients undergoing intracoronary ACh provocative test for suspected myocardial ischaemia with angiographic evidence of non-obstructive coronary arteries. Complications during the ACh test were collected. Occurrence of major adverse cardiac events (MACE), arrhythmic events at 24-h ECG dynamic Holter monitoring and angina status were assessed at follow-up. We enrolled 310 patients [mean age  $60.6 \pm 11.9$ ; 169 (54.5%) chronic coronary syndromes (CCS) and 141 (45.5%) with myocardial infarction and non-obstructive coronary arteries (MINOCA)]. The overall incidence of complications was low (9%) with a similar incidence in MINOCA and CCS [10 (7.1%) vs. 18 (10.7%),  $P=0.276$ , respectively]. At multivariate logistic regression analysis, a previous history of paroxysmal atrial fibrillation [odds ratio (OR): 12.324, confidence interval (CI): 95% (4.641-32.722),  $P=0.015$ ] and moderate/severe diastolic dysfunction [OR: 3.827, 95% CI (1.296-11.304),  $P=0.015$ ] were independent predictors for occurrence of complications. The occurrence of complications was not associated with a worse clinical outcome at follow-up (median follow-up 22 months) in terms of both MACE, arrhythmic events and angina burden.

**Conclusions:** Intracoronary provocative testing with ACh test is safe in patients with myocardial ischaemia and non-obstructive coronary arteries (including MINOCA patients). History of paroxysmal atrial fibrillation and moderate/severe diastolic dysfunction predicted the occurrence of complications during ACh test. However, occurrence of complications did not portend a worse prognosis at follow-up in terms of MACE, arrhythmic events, and angina burden.

