COMENTÁRIO A ARTIGO CIENTÍFICO



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Complete Revascularization Guided by Functional Coronary Angiography in STEMI (AIR STEMI)

» randomized, multi-center study, open-label

Population	Intervention and comparison	Outcomes	Results
• 1823 patients with STEMI and multivessel CAD; FUP 17.9 months. • Successful primary PCI of the culprit lesion. • At least one non-culprit lesion with 50–99% angiographic stenosis in a vessel with a reference diameter ≥ 2.5 mm. • Randomization within 48 hours after successful culprit-lesion PCI. **Exclusion criteria:** • Unidentified culprit lesion. • Left main coronary artery disease. • Previous or planned CABG. • Life expectancy below 1 year.	**Physiology-guided PCI:** • Functional angiography using angiography-derived FFR. • Assessment of all non-culprit lesions with stenosis ≥50%. • PCI performed if FFR ≤0.80. • Virtual PCI plan guided by the FFR pullback curve. **Angiography-guided PCI:** • Visual angiographic assessment. • PCI for all non-culprit lesions with stenosis ≥50%. • No physiological assessment.	**Primary efficacy endpoint:** Composite of: • All-cause mortality. • Myocardial infarction (MI). • Cerebrovascular accident (stroke or TIA). • Ischaemia-driven coronary revascularisation. **Secondary efficacy endpoints:** • CV death or MI. • Any MI. • Ischaemia-driven revascularisation. **Primary safety endpoint:** • Composite of contrast-associated acute kidney injury or major bleeding (BARC 3–5).	**Physiology-guided complete PCI** associated with: • 38% relative reduction in the primary composite endpoint (8.9% vs 13.7%). • Fewer non-culprit lesions treated (51.9% vs 94.9%) and lower procedural burden. **Benefit:** primarily by reduction in MI (HR 0.47; 95% CI 0.31–0.70). **Safety:** Physiology-guided PCI reduced the primary safety endpoint (4.6% vs 7.1%; HR 0.63; 95% CI 0.43–0.93; P=0.02) » predominantly driven by a reduction in contrast-associated AKI. **Mortality:** No significant difference.

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