

## Functional coronary testing in acute coronary syndromes: can we defer that easily?

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**Introduction:** Functional coronary testing rather than systematic stenting in chronic coronary syndromes has been advocated by the most recent guidelines. However, its use in patients with acute coronary syndromes (ACS) is controversial.<sup>1</sup> We aimed to evaluate the penetration of functional coronary testing in patients with ACS in our center.

**Patients and Methods:** We analyzed data from quantitative coronary angiography and functional coronary testing in patients who underwent invasive coronary angiography in 2022.

**Results:** Out of 2075 patients who underwent coronary angiography in 2022, 536 (26%) patients had acute coronary syndrome. Among 536 acute coronary syndrome patients, 42 (8%) patients received invasive functional testing. All patients had non-hyperemic indices (instantaneous wave-free ratio [iFR] or coronary resistance reserve [cRR]) analyzed, with 4 (10%) patients with borderline results requiring additional fractional flow reserve (FFR). In 40/42 patients functional testing was done in another setting, in order to assess non-culprit lesions. In only 2 patients functional testing was done during invasive assessment of an acute coronary episode (1 in the circumflex artery territory, and 1 in the proximal left anterior descending artery) and in both cases percutaneous coronary intervention (PCI) was deferred. Generally, there were no adverse events in deferred patients during 6-months follow-up.

**Conclusion:** Functional testing in patients with acute coronary syndromes was mostly performed in a staged procedure in order to assess non-culprit lesions. The use of functional testing to defer or confirm PCI indication in a suspected culprit lesion in acute setting, or ad hoc in by-stander lesions immediately after culprit lesion PCI, is still controversial and requires additional study. Additional imaging methods would probably help identify culprit lesions among intermediate stenoses found in patients with acute coronary syndromes.

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### LITERATURE

- Berntorp K, Rylance R, Yndigegn T, Koul S, Fröbert O, Christiansen EH, et al. Clinical Outcome of Revascularization Deferral With Instantaneous Wave-Free Ratio and Fractional Flow Reserve: A 5-Year Follow-Up Substudy From the iFR-SWEDEHEART Trial. *J Am Heart Assoc.* 2023 Feb 7;12(3):e028423. <https://doi.org/10.1161/JAHA.122.028423>