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Immediate Invasive Strategy for Patients With Both New Ischemic Electrocardiographic Changes and Troponin Elevation



We read with great interest the recent publication by Milosevic et al. (1) on the RIDDLE-NSTEMI (Randomized Study of Immediate Versus Delayed Invasive Intervention in Patients With Non-ST-Segment Elevation Myocardial Infarction) trial, and we congratulate the investigators on their important contribution to clarify the optimal timing of invasive management in non-ST-segment elevation acute coronary syndromes (NSTEMI). They conclude that an immediate (<2 h) is superior to a delayed (2 to 72 h) invasive strategy at mid-term follow-up, mainly because of a decrease in the risk for new myocardial infarction before catheterization. Certainly, though guidelines recommend early invasive management, how early it must be according to patient characteristics within the wide spectrum of NSTEMI remains a matter of controversy. Indeed, the results of RIDDLE-NSTEMI could modify clinical practice, performing early cardiac catheterization. This policy might entail logistic constraints for many institutions and health care systems. The very low rate (3%) of patients with nonsignificant coronary stenosis found in RIDDLE-NSTEMI, however, is unusual. For example, in the ACUITY (Acute Catheterization and Urgent Intervention Triage Strategy) trial, including moderate- and high-risk NSTEMI, the rate of nonobstructive coronary artery disease was 8.8% (2). Furthermore, the introduction of high-sensitivity troponins has increased the number of

procedures under the suspicion of NSTEMI as well as the number of patients with troponin elevation and normal angiographic results, which could be as high as 20% (3,4). The final diagnosis of these patients is challenging, but probably many of them do not actually have NSTEMI (5). In the high-sensitivity troponin era, the indiscriminate implementation of the RIDDLE-NSTEMI conclusions might trigger unnecessary very early catheterization, which will probably translate into a spurious benefit in terms of ischemic events. In our opinion, Milosevic et al. should underscore the selective inclusion criteria of their study; enrolled patients required both new ischemic electrocardiographic changes and troponin elevation. What differentiates RIDDLE-NSTEMI from other trials is the approximate 80% rate of new ST-segment depression and 20% rate of new T-wave inversion in its population. Therefore, to clarify the message, the conclusions of the study should be modified to state that in patients with NSTEMI with both new ischemic electrocardiographic changes and troponin elevation, the policy of immediate invasive management is superior to a delayed invasive strategy.

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<http://dx.doi.org/10.1016/j.jcin.2016.01.019>

Please note: This work was supported by the Ministry of Economy and Competitiveness through the Carlos III Health Institute: RETICS RD12/0042/0010, FEDER; Health Research Fund FIS PI 11/01595. The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

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