Silent ischemia in exercise test in patients with stable coronary artery disease, what does it mean?


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Introduction: The benefit of cardiac rehabilitation programs (CRP) in ischemic patients is well known and is included as an IA indication in European Cardiology guidelines. At the end of CRP phase II, it is not uncommon to get an isolated electric positive result (silent ischemia) which has an unknown significance as clinical marker. This finding could be more challenging in patients without complete revascularization.

Purpose: To study whether silent ischemia (SI) and incomplete revascularization acted as markers of future events in patients who participated in a CRP after coronary revascularization.

Methods: A retrospective descriptive analysis of consecutive patients who were part of a CRP between January 2019 and March 2020 was performed. We analyzed the relationship between the presence of SI (defined as ST-segment depression \( \geq 1 \) mm in two or more contiguous leads in the absence of clinical symptoms) in the routine exercise test at the end of CRP phase II and the occurrence of events within first year (defined as: emergency room visits, cardiac complication without admission, admission for non-cardiac cause, admission for cardiac cause or death). Cardiovascular risks factors and type of revascularization (incomplete vs complete) were analyzed as modifiers of outcomes.

Results: Of the 380 patients analyzed 79 presented some event in the first year. The mean age was 63±10 and 78% were male. The demographic characteristics are shown in Table 1. The presence of SI at the final exercise routine test of phase II CRP was observed more frequently in the group of patients who suffered an event within first year (p 0.030). Although there was a statistically significant correlation between the presence of incomplete revascularization (IR) and the presence of SI (p 0.002), there was no significant relationship between the presence of IR and events (p 0.082). The detailed results are shown in Table 2.

Conclusions: Among our population, exercise tests is useful for detecting patients at an increased risk of events during the first year after coronary revascularization. However, the incomplete revascularization did not appear to be a prognostic factor. The exercise test seems to be useful for detecting patients in whom intensify preventive efforts.