Effect of myocardial ischemia in diabetic and non-diabetic patients: long-term follow-up of MASS registry

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Background: Prognostic role of ischemia has been debated. The association with diabetes mellitus (DM) seems to add risks of cardiovascular events. We aimed to assess whether ischemia confers additional risks in diabetic population.

Methods: A single-center, prospective study including subjects with multivessel coronary artery disease who underwent surgery, percutaneous intervention or medical therapy. They were stratified according to presence of ischemia and DM. Primary endpoint was defined as death or myocardial infarction (MI). Secondary endpoint was death.

Results: We enrolled 1001 patients with conclusive stress tests: 790 (79%) with ischemia and 211 (21%) without ischemia. Mean follow-up was 8.7 years (IQR 4.04–10.07). The primary outcome occurred in 228 (28.9%)

patients with ischemia and 64 (30.3%) without ischemia (p=0.60). Event rate among those with negative stress test, with or without DM, was similar (p=0.96 and p=0.60 respectively). Among those with ischemia, 145 (35.6%) with DM presented the combined event compared to 83 (21.7%) without DM (HR: 1.39; 95% CI 1.06–1.83, p=0.01). Death occurred in 117 diabetic and 65 (17%) in non-diabetic subjects (HR: 1.49, 95% CI: 2.03, p=0.01).

Conclusion: Overall, the presence or absence of ischemia was not related to death or MI. However, subset of patients with DM and ischemia revealed increased risk of death and cardiovascular events irrespective of treatment strategy.



