AIMS: Current treatment may have changed the risk profiles of survivors of acute myocardial infarction (AMI). We evaluated the utility of Holter-based risk variables in the prediction of sudden cardiac death (SCD) among survivors of AMI treated with modern therapy. METHODS AND RESULTS: A total of 2130 AMI patients (mean age 59 +/- 10 years) were included. The patients were treated with modern therapeutic strategies, for example, 94% were on beta-blocking therapy and 70% underwent coronary revascularization. Various risk parameters from Holter monitoring were analysed. During a median follow-up of 1012 days (interquartile range: 750-1416 days), cardiac mortality was 113/2130, including 52 SCDs. All Holter variables predicted the occurrence of SCD (P<0.05, particularly TS (hazard ratio 5.9; 95% CI 2.9-11.7, P<0.001). CONCLUSION: Among the post-AMI patients treated according to the current guidelines, the incidence of SCD is low. Various Holter variables still predict the occurrence of SCD, particularly among the patients with preserved left ventricular function.