Abstract: P850

Clinical difference of recent myocardial infarction compared with acute myocardial infarction - Insights from Tokyo CCU network multicenter registry

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Background

Although the patient’s characteristics and outcome of acute myocardial infarction (AMI) have been sufficiently investigated and primary percutaneous coronary intervention (PCI) has been recognized as established treatment strategy, those of recent myocardial infarction (RMI) have not been fully evaluated.

Purpose

The purpose of the present study was to clarify clinical characteristics and in-hospital outcomes of RMI patients from the database of the Tokyo CCU network multicenter registry.

Methods

In Tokyo CCU network multicenter registry database from 2013 to 2016, 15788 consecutive patients were registered as AMI (within 24 hours from onset) and RMI (within 2-30 days from onset). However 1246 patients were excluded because of inadequate data. And we excluded 66 cases because of out of onset period and 129 cases that strongly suspected of involvement of vasospastic events. Therefore, remaining 14347 patients were categorized to RMI group (n = 1853) and AMI group (n = 12494), and analyzed.

Results

Compared with AMI group, average age was older (70.4 ± 12.9 vs 68.0 ± 13.4 years, p < 0.001), male was less (72.4 vs 76.4 %, p < 0.001), chest pain as chief complaint was less (75.2 vs 83.6 %, p < 0.001), prevalence of diabetes mellitus was higher (35.9 vs 31.0 %, p < 0.001), multi-vessel coronary disease was more (54.7 vs 44.6%, p < 0.001), patients undergoing PCI was less (79.0 vs 91.2 %, p < 0.001), and the incidence of mechanical complication was more in RMI group (3.0 vs 1.5 %, p < 0.001). Although 30-day mortality was equivalent between 2 groups (5.3 vs 5.8 %, p = 0.360), the major cause of death in AMI group was cardiogenic shock, while in the RMI group it was a mechanical complication. On Kaplan-Meier analysis, the 2 groups had significantly different cumulative incidence of death due to cardiogenic shock (p = 0.006, Log-rank test) and mechanical complication (p = 0.021, Log-rank test). Furthermore death due to mechanical complication in AMI group was plateau after about 1 week from hospitalization, whereas in RMI group it continued to increase.

Conclusions

RMI patients had distinctive clinical features in backgrounds and treatment strategies compared with AMI
patients, and the major cause of death of RMI patients was different from that of AMI patients. Furthermore, even though treatment during hospitalization of RMI patients was well done, death due to mechanical complications continued to increase.