INCREASE IN THE INCIDENCE OF ACUTE CORONARY SYNDROME AFTER THE 2011 EAST JAPAN NATURAL DISASTER: CONCORDANCE WITH SEQUENTIAL QUAKE SHOCKS

Poster Contributions
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Background: No reports have demonstrated the combined effect of earthquake and tsunami disaster on the incidence of acute myocardial infarction (AMI) and sudden death (SD).

Methods: We surveyed incidence and clinical characteristics of patients with AMI and SD in the Iwate prefecture including coast area hit by the catastrophic earthquake followed by tsunamis (occurred at 11th March 2011). Patients hospitalized in all hospitals located in the disaster area were surveyed retrospectively for 2 weeks before and 8 weeks after the disaster. For comparison with the previous year's-case numbers, the same survey was conducted in the corresponding area and periods in 2009 and 2010.

Results: The weekly trends in the incidence of the events (AMI + SD) before and after the disaster period was shown in Figure. The numbers of cases per week increased at 1st week after the initial quake (magnitude 9.0) and again at 1st week just after the second quake (magnitude 7.2). To compare with previous years, the overall incidences for 4 weeks after the disaster was significantly increased (odds ratio = 1.73; 95%CI = 1.27 ~ 2.35; p < 0.001). The odds ratio of the increase in the incident was not different between the tsunami area and the inland area.

Conclusion: The concordance of sudden increase in the incidence of AMI/SD and the sequential quake shocks suggests that acute psychosomatic stress rather than the environmental deterioration by tsunami is an important trigger of acute coronary syndrome.