Abstract: P3615

The number of coronary risk factors and mortality in patients with acute myocardial infarction from Japanese nation-wide real-world database

Authors:
H. Mori¹, K. Nishihara², S. Honda³, S. Kojima⁴, M. Takegami⁴, J. Takahashi⁵, T. Itoh⁶, T. Watanabe⁷, T. Takenaka⁸, M. Ito⁹, M. Takayama¹⁰, K. Kario¹¹, T. Sumiyoshi¹⁰, K. Kimura¹², S. Yasuda¹², ¹Fujigaoka Hospital - Yokohama - Japan, ²Miyazaki Medical Association Hospital - Miyazaki - Japan, ³National Cerebral and Cardiovascular Center - Osaka - Japan, ⁴Kawasaki Medical University - Okayama - Japan, ⁵Tohoku University - Sendai - Japan, ⁶Iwate Medical University - Morioka - Japan, ⁷Yamagata University - Yamagata - Japan, ⁸Hokkaido Medical Center - sapporo - Japan, ⁹Mie University - Tsu - Japan, ¹⁰Sakakibara Heart Institute - Tokyo - Japan, ¹¹Jichi Medical University - Tochigi - Japan, ¹²Yokohama City University Medical Center - Yokohama - Japan.

On behalf: JAMIR

Topic(s):
Acute Coronary Syndromes – Epidemiology, Prognosis, Outcome

Citation:
European Heart Journal (2019) 40 (Supplement), 2220

Background: Hypertension, diabetes, dyslipidemia and smoking are so-called coronary risk factors for coronary heart disease, which were established by extensive epidemiological research. However, in Japanese patients with acute myocardial infarction (AMI), the impact of number of coronary risk factors on in-hospital morality has not been elucidated.

Methods: The Japan Acute Myocardial Infarction Registry (JAMIR) is a nationwide real-world database integrated form 10 regional registries. We examined the association between number of coronary risk factors and in-hospital mortality from this JAMIR registry.

Results: The data were obtained from total of 20462 AMI patients (mean age, 68.8±13.3 years old; 15281 men, 5181 women). Figure 1 shows the prevalence of each coronary risk factors stratified by sex and decade. The prevalence of hypertension became higher with the advanced age while the prevalence of smoking became lower with the advanced age. Prevalence of diabetes and dyslipidemia were highest in middle age. Majority (76.9%) of the patients with AMI had at least 1 of these coronary risk factors and, 23.1% had none of them. Overall, except women under 50, number of coronary risk factor was relatively less in older age (Figure 2). In-hospital mortality by sex and decades was shown in figure 3. In-hospital mortality rates were 10.7%, 10.5%, 7.2%, 5.0% and 4.5% with 0, 1, 2, 3 and 4 risk factors, respectively (Figure 4A). After adjusting age and sex, there was an inverse association between the number of coronary risk factors and in-hospital mortality (adjusted odds ratio [1.68; 95% CI, 1.20–2.35] among individuals with 0 vs. 4 risk factors, Figure 4B).

Conclusion: In the present study of Japanese patients with AMI, who received modern medical treatment, in-hospital mortality was inversely related to the number of coronary risk factors.
Abstract: The number of coronary risk factors and mortality in patients with acute myocardial infarction from Japanese nationwide real-world database


1 Fujigaoka Hospital - Yokohama - Japan, 2 Miyazaki Medical Association Hospital - Miyazaki - Japan, 3 National Cerebral and Cardiovascular Center - Osaka - Japan, 4 Kawasaki Medical University - Okayama - Japan, 5 Tohoku University - Sendai - Japan, 6 Iwate Medical University - Morioka - Japan, 7 Yamagata University - Yamagata - Japan, 8 Hokkaido Medical Center - Sapporo - Japan, 9 Mie University - Tsu - Japan, 10 Sakakibara Heart Institute - Tokyo - Japan, 11 Jichi Medical University - Tochigi - Japan, 12 Yokohama City University Medical Center - Yokohama - Japan

On behalf: JAMIR

Topic(s): Acute Coronary Syndromes – Epidemiology, Prognosis, Outcome

Citation: European Heart Journal (2019) 40 (Supplement), 2220

Background: Hypertension, diabetes, dyslipidemia and smoking are so-called coronary risk factors for coronary heart disease, which were established by extensive epidemiological research. However, in Japanese patients with acute myocardial infarction (AMI), the impact of number of coronary risk factors on in-hospital mortality has not been elucidated.

Methods: The Japan Acute Myocardial Infarction Registry (JAMIR) is a nationwide real-world database integrated from 10 regional registries. We examined the association between number of coronary risk factors and in-hospital mortality from this JAMIR registry.

Results: The data were obtained from a total of 20,462 AMI patients (mean age, 68.8±13.3 years; 15,281 men, 5,181 women). Figure 1 shows the prevalence of each coronary risk factor stratified by sex and decade. The prevalence of hypertension became higher with the advanced age while the prevalence of smoking became lower with the advanced age. Prevalence of diabetes and dyslipidemia were highest in middle age. Majority (76.9%) of the patients with AMI had at least 1 of these coronary risk factors and 23.1% had none of them. Overall, except women under 50, the number of coronary risk factors was relatively less in older age (Figure 2). In-hospital mortality by sex and decades was shown in Figure 3. In-hospital mortality rates were 10.7%, 10.5%, 7.2%, 5.0% and 4.5% with 0, 1, 2, 3 and 4 risk factors, respectively (Figure 4A). After adjusting age and sex, there was an inverse association between the number of coronary risk factors and in-hospital mortality (adjusted odds ratio [1.68; 95% CI, 1.20–2.35] among individuals with 0 vs. 4 risk factors, Figure 4B).

Conclusion: In the present study of Japanese patients with AMI, who received modern medical treatment, in-hospital mortality was inversely related to the number of coronary risk factors.