Abstract: P3604

Gender difference in Low-BMI patients with acute myocardial infarction makes an impact on mid-term outcomes

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Background/Introduction: There are some reports about impact of low body-mass-index (BMI) on patients with acute myocardial infarction (MI), suggesting an obesity paradox. However, the differential impact of gender between low-BMI and mid-term outcome remains unclear.

Purpose: To evaluate the differential impact of gender between low-BMI patients with acute MI and mid-term outcome.

Methods: We evaluated 3038 consecutive patients with acute MI in Miyazaki medical association hospital. Patients were stratified low-BMI group (BMI<20) from other-BMI group (BMI>20), and compared. BMI was measured at admission of acute MI. Primary outcome was cardiac death. We also analyzed each gender, using Kaplan-meier curve with long-rank test.

Result: Among all patients, low-BMI patient was 8.6%. Median follow-up was 1085 days, and cardiac death was significantly higher rate in low-BMI group (14.5% vs 7.7 %, p < 0.001). Male patient with low-BMI was significantly higher event rate, compared with other-BMI group (11.0% vs 5.5%, p < 0.001). However, female patient group had no significant difference of outcomes between low-BMI and other-BMI (12.6% vs 10.3%, p = 0.315). Event rate is shown in the Figure.

Conclusions: Low BMI was associated with mid-term outcomes in acute MI patients. Impact of low-BMI on mid-term outcome seems to be gender dependent in acute MI patients.