Prevalence of Atypical Presentation and Factors Related to Characteristics of Chest Pain in Patients Presented with Acute Coronary Syndrome in HRH Princess Mahachakri Sirindhorn Medical Center

Nattaporn Pawakkaranon¹  Rutchoiphun Taweerutchana¹
Worawut Roongsangmanoon¹

¹Department of Internal Medicine, Faculty of Medicine, Srinakharinwirot University, Nakhon Nayok 26120, Thailand

Background: Acute coronary syndrome (ACS) is an emergency medical condition affecting many patients. Most of them present with typical chest pain, but some come to hospital with atypical symptoms, leading to misdiagnosis and higher morbidity and mortality.

Objective: The aim of this study was to determine the prevalence of atypical presentation and factors related to the characteristics of chest pain, including major adverse cardiac events (MACE) in patients with ACS in HRH Princess Mahachakri Sirindhorn Medical Center (MSMC).

Methods: A retrospective cross-sectional study was conducted in patients with diagnosed ACS and coronary angiography from October 2015 to April 2017. Patients were divided into 2 groups: typical group and atypical presentation group. Data and medical records of these patients were collected and reviewed including baseline characteristic, clinical presentation, and complication to evaluate risk factors.

Results: A total of 365 patients were included. Approximately 21.9% (n=80) of them were classified as atypical presentation group, such as epigastric pain (42.5%), dyspnea (38.7%), syncope (11.2%), etc. After multiple logistic regression, age (OR, 0.96; 95% CI, 0.94 to 0.98; P<0.001) and dyslipidemia (OR, 0.52; 95% CI, 0.29 to 0.92; P=0.025) were significantly associated with atypical presentation. In addition, there were more complications in the atypical presentation group, including heart failure (49.37% vs 19.65%, p<0.001), arrhythmia (18.75% vs 9.47%, p=0.022), respiratory failure (21.25% vs 7.02%, p<0.001), infection (16.25% vs 6.32%, p=0.005), cardiogenic shock (12.5% vs 4.91%, p=0.016), and MACE (12.5% vs 4.91%, p=0.016).

Conclusion: The prevalence of atypical presentation is 21.9%. Age and dyslipidemia are significantly associated with atypical presentation. More complications are found in the atypical presentation group.

Keywords: Atypical presentation, Acute coronary syndrome, Major adverse cardiac events