

Sudden cardiac death in acute coronary syndrome: the west vs. the orient

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Sudden cardiac death (SCD) is an unexpected death from cardiac causes occurring within a short time period (generally within 1 h from onset of symptoms if witnessed or within 24 h of having been observed alive if unwitnessed) in a person without any prior condition that would appear fatal. The relationship between race and SCD has been the focus of studies that used administrative databases and registries. In the USA and Europe, the annual incidence of SCD ranges from 50 to 100 per 100,000 in the general population. In Asia, the incidence of SCD has been reported as 37 per 100,000 person years in Japan, 41 in China, 38 in Thailand, and 43 in the Philippines, all of which are relatively lower than in the USA and Europe. According to a cohort study of residents in the USA, Asians had a lower incidence of SCD than African-Americans and Whites. By using the National Health Insurance claim data of Taiwan, the SCD rate after MI was around 4.0% in 5 years of follow, which is lower than the western in which around 7.0% of patients with myocardial infarction and left ventricular dysfunction had SCD events at a median follow of 180 days. It seems that race could be an independent factor associated with a higher risk of SCD after an acute coronary syndrome, but the exact underlying causes are unclear. Possibly a higher coronary artery calcium accumulation in white people than that in orient people may partly account for an accelerated atherosclerosis process and a more severe coronary artery disease, leading to a higher rate of SCD events in the west.