

Special Article - Acute Coronary Syndrome

Out-of-Hospital Cardiac Arrest and Ethnicity: Should Health Professionals Learn about Cultural Competence?

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Keywords

Acute Coronary Syndrome; Out-of-Hospital Cardiac Arrest; Emergency Medical Service Cultural Competence; Ethnicity

Editorial

Cardiac arrest is a situation of the cessation of the cardiac mechanical activity as confirmed by the absence of signs of circulation which can occur anytime with anybody. One systematic review reported that the Out-of-Hospital Cardiac Arrest (OHCA) due to cardiac cause was 55 adults per 100,000 person/years with the survival rate of 7% [1]. The incidences and survival rate after out-of-hospital cardiac arrest vary from region to region and across the communities. Variation in survival rate after OHCA has been found associated with many factors, and the potential factors include interval time between symptoms of onset and receiving Cardiopulmonary Resuscitation (CPR), ambulance or emergency medical service response time, bystander CPR, location of the episode, and history of cardiac disease. The two factors reported have most influence on the OHCA survival are the collapse-to-receive first CPR interval and the collapse-to-first definitive care interval [2]. Other studies have supported that the survival rate decline dramatically as the delay increase and the delay longer than 30 minutes will lead to a small chance of survival [3,4]. The mortality rate of OHCA has been estimated to increase 3% and 4% for every single minute of delay to initial CPR and defibrillation respectively [5]. In other words, every minute counts for the patient's survival when they experience cardiac arrest.

Individuals with coronary heart disease have been considered at high risk of sudden death from cardiac arrest. Approximately, one third of these patients who experience OHCA will die within 1-2 hours after the resuscitation. Interestingly, almost 90% of successful resuscitation OHCA victims have Acute Coronary Syndromes (ACS). Many studies in OHCA supported that the most common cause of OHCA is ACS for decades [6-8]. Delay in receiving the definitive treatment for ACS has a negative relationship with a mortality rate [6], and time to reach the emergency medical services for OHCA play the same roles as for ACS. Individuals with ACS complicated with OHCA have been reported in a high-risk group who will face the dilemma of high mortality rate of AMI and OHCA. They are also prone to have a high short-term and long-term mortality even though they were survived from OHCA resuscitation.

Delay in seeking medical care for chest pain or ACS has been reported worldwide [6,7] and there are various factors associated with those delay, including ethnicity and social factors [8]. Migrants are likely to have different perceptions of health and healthcare system which can lead to different seeking care behaviors'. One study revealed a longer delay time in seeking care for chest pain among migrants [9]. This situation would bring the concern to health professionals' attention on cultural diversity and healthcare, particularly OHCA among patients with diverse cultural backgrounds. In multicultural countries, the standard of practice and guidelines of emergency care are generally utilized well for the dominant patients who shared the same culture and language; however, it might not be applied appropriately to culturally and linguistically diverse populations. To increase survival rate of OHCA among minority groups, cultural barriers should be addressed seriously in both practice and policy levels [10]. Understanding the situation and a clear communication between clinicians and patients and their family or friends, are the crucial part of life-threatening episode, including OHCA. Normalizing cultural competence into healthcare system could be an effective strategy that helps reducing delay time during the crisis episode of cardiac arrest among ethnic populations.

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