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A Profile of Out-of-Hospital Cardiac Arrest in 'Amang' Rodriguez Memorial Medical Center: A Prospective Cohort Study

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Abstract : Introduction: Cardiac arrest occurs when abrupt cessation of cardiac function results in loss of effective circulation and complete cardiovascular collapse. For every minute of cardiac arrest without early intervention (cardiopulmonary resuscitation [CPR], defibrillation), chances of survival drop by 7-10%. It is crucial that CPR be initiated within 4-6 minutes to avoid brain death. Most out-of-hospital cardiac arrests (OHCA) occur in a residential setting where access to trained personnel and equipment is not readily available, resulting in poor victim outcomes. Methods: This is a descriptive study done from August to November 2021 using a prospective cohort design. Participants of the study include adult patients aged 18 years and above brought to the emergency room who suffered from out-of-hospital cardiac arrest. Out of the total 102 cases of OHCA, 63 participants were included in the study. Descriptive statistics were used to summarize the demographic and clinical characteristics of the patients. Results: 43 were male patients, comprising the majority at 73.02%. Hypertension was identified as the top co-morbidity, followed by diabetes mellitus, heart failure, and chronic kidney disease (CKD). Medical causes of arrest were identified in 96.83% of the cases. 90.48% of cardiac arrests occurred at home. Only 26 patients (41.27%) received pre-hospital intervention prior to ER arrival, which comprised only hands-only CPR. Twenty-three of which were performed by individuals with background knowledge of CPR. 60.32% were brought via self-conduction, the remainder by ambulances, which were noted to have no available equipment necessary to provide proper resuscitation. The average travel time from dispatch to ER arrival is 20 minutes. Conclusion: Overall survival of OHCA in our local setting remains dismal, as a return of spontaneous circulation was not achieved in any of the patients. The small number of patients having pre-hospital CPR indicates the need for emphasis on training and community education.

Keywords : out-of-hospital cardiac arrest, cardiopulmonary resuscitation, basic life support, emergency medical services
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