



Out-of-hospital cardiac arrest in pediatric patients

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Background and objective:

The incidence and outcomes of out-of-hospital cardiac arrest (OOHCA) in the pediatric population vary greatly between countries or regions. We here describe the results of a regional continuous register (Andalusia, Spain).

Methods:

Description and analysis of pediatric patients (≤ 16 years) recorded in a continuous register OOHCA cases attended by emergency medical services (EMS) between January 2008 and December 2010.

RESULTS

Of 3,038 patients who underwent resuscitation, 70 (2.3%) were pediatric patients, 41 (58.6%) being male. Mean age was 6.07 ± 5.2 years, median 4.5 years, IQR (2-11). The reason for EMS callout was unconsciousness in 34 (48.6%) cases. Most cases (51: 72.9%) occurred outside the home; 61.4% were witnessed, 10% by the EMS team. Previous life support was provided in 44 cases (62.9%). The initial rhythm was shockable in only 4 cases (5.7%). OOHCA etiology was: cardiac 33 (47.2%), respiratory 13 (18.6%), trauma 11 (15.7%), drowning 5 (7.1%), poisoning 2 (2.9%), metabolic 1 (1.4%), neurologic 1 (1.4%) and other causes 4 (5.7%). Return of spontaneous circulation was present in 30% on hospital arrival and 11 (15.7%) patients arrived with ongoing resuscitation. Only 5 (7.14%) patients were discharged with good neurological status (CPC 1-2). No patient with ongoing resuscitation was discharged. Four of the five survivors had cardiac etiology and three had a shockable initial rhythm.

Conclusions:

The incidence of pediatric OOHCA is low. In many cases it is witnessed. Although the majority received early basic life support, the final outcome was poor. Survival with good neurological status was found in cases with cardiac causes and initial shockable rhythm.