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EDITORIAL COMMENT

Out-of-hospital cardiac arrest in children

Paragem cardíaca extra-hospitalar em crianças

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To the Editor:

Out-of-hospital cardiac arrest is defined as the loss of mechanical function of the heart along with the absence of systematic circulation outside of a hospital setting.[1]

Unfortunately many cases occur in the absence of emergency medical services, an important reason for the low survival rate.

In the USA, 2–6% of all cases are in pediatric age-groups, and survival rates are 6–13%. In Japan the survival rate is 17–19%, although it is higher than in adults.

A paper analyzing one-month survival after pediatric out-of-hospital cardiac arrest reveals a lower survival rate following cardiac arrest at night compared with daytime or evening.[2] The location of pediatric cardiac arrest has an important influence on overall prognosis and neurological sequelae.

De Maio et al. suggest that trauma accounts for almost one third of pediatric out-of-hospital cardiac arrests.[3]

Rapid and effective initiation of basic life support improves survival, and, if administered, more than eight out of 10 children transported to the hospital by emergency medical services experience return of spontaneous circulation.[3]

In conclusion, pediatric out-of-hospital cardiac arrest usually has a negative outcome, albeit less often than in adults. Early cardiopulmonary resuscitation and defibrillation have the greatest impact on return of spontaneous circulation and survival. However, overall prognosis and neurological outcome are relatively poor, emphasizing the need to mitigate sequelae.

Conflicts of interest

The author has no conflicts of interest to declare.

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