

Oral presentation

Open Access

Continued cardiopulmonary resuscitation during transport in a physician-based Emergency Medical System

Elín E Sigurðardóttir*, Søren L Nielsen and Freddy K Lippert

Address: Mobile Emergency Care Unit, Rigshospitalet, Copenhagen University Hospital, Denmark

Email: Elín E Sigurðardóttir* - elinedda@gmail.com

* Corresponding author

from Scandinavian Update on Trauma, Resuscitation and Emergency Medicine 2009 Stavanger, Norway. 23 – 25 April 2009

Published: 28 August 2009

Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine 2009, 17(Suppl 3):O10 doi:10.1186/1757-7241-17-S3-O10

This abstract is available from: <http://www.sjtreem.com/content/17/S3/O10>

© 2009 Sigurðardóttir et al; licensee BioMed Central Ltd.

Introduction

In the Capital Region of Denmark the physician-staffed Mobile Emergency Care Unit (MECU) is dispatched to all of out-of-hospital cardiac arrests (OHCA). OHCA is treated at the scene and patients are either successfully resuscitated at scene or resuscitation is not successful and the patient declared dead [1]. In a limited number of cases initial resuscitation is not successful and the patient is transferred to hospital with ongoing cardiopulmonary resuscitation (CPR).

Methods

The aim of this study is to characterize the patients with OHCA, who receive CPR during transport to hospital. A retrospective analysis is made of prospectively collected data from the database of the Copenhagen MECU for the period 1.1.2007–31.12.2008.

Results

Over 24 months the MECU was dispatched to 1400 patients with OHCA. Of those, 49 (4%) met the inclusion criteria and were analyzed. In 13 cases (27%) ROSC was achieved at hospital. Five patients (10%) survived to discharge from hospital. First ECG rhythm was ventricular fibrillation (VF)/pulseless ventricular tachycardia (pVT) in 45%, asystole in 27% and pulseless electrical activity (PEA) in 27%. Bystander CPR was reported in 22%. In 71% the arrest was witnessed, half of those (49%) were witnessed by the EMS. Presumed etiology was most commonly cardiac (65%). Reasons for transport with ongoing

CPR were generally not reported. In 18% of the cases the patient had cardiac arrest during transport. In 31% it was documented that spontaneous circulation had been achieved intermittently or insufficiently or that the pupillary light reflex was intact.

Conclusion

Among patients with OHCA, treated by a physician-staffed MECU, relatively few are transported to hospital with ongoing CPR. Resuscitation in this selected group of patients is not futile and survival does not differ from reported survival after OHCA. Reasons for transporting patients with ongoing CPR are not known.

References

1. Horsted TI, et al.: **Outcome of out-of-hospital cardiac arrest – why do physicians withhold resuscitation attempts?** *Resuscitation* 2004, **63**:287-293.