

Summary

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Injuries associated with cardiopulmonary resuscitation (CPR) present the actual issue on the boundary of several medical specialities. The prevalence of CPR associated injuries is very high; the spectrum of these injuries is wide (from clinically irrelevant to injuries incompatible with life). The primary aim of the study was to evaluate frequency and seriousness of CPR associated injuries; the secondary aim was the analysis of factors, which might have participated in the development of CPR associated injuries. In total, 80 persons were enrolled in the study. All included individuals were resuscitated before death and underwent an autopsy at the University Hospital Ostrava within the study period (1. 9. 2012 – 30. 8. 2015). Injuries associated with CPR were revealed in 93.7% of resuscitated persons; injuries were multiple in the vast majority of these persons. Skin injuries, head and neck injuries, rare intra-abdominal injuries and frequent intrathoracic injuries were identified within the study group. Clinically serious injuries associated with CPR were revealed in 41.2% of persons (lung contusions or lacerations, hemothorax, hearth contusion, hemopericard, liver lacerations, spleen ruptures). Sternal fractures were identified in 63.3% of persons; rib fractures in 73% of persons (the most frequent localisation of rib fractures was on the anterior thoracic wall between parasternal and anterior axillary line). A significant correlation between skeletal chest fractures and the prevalence of clinically serious injuries associated with CPR was proved. Pulmonary fat embolism was diagnosed more frequently in persons with skeletal chest fractures. More frequent bone marrow pulmonary embolization in persons with skeletal chest fractures was not proved. According to our study outcomes, resuscitation injuries present frequent and serious complications in patients after unsuccessful CPR. The prevalence of clinically serious resuscitation injuries CPR should be minimalized through close monitoring and correct performance of CPR techniques.

Key words: Cardiopulmonary resuscitation. Injuries. Autopsy study. Risk factors.