Reviewer's report

Title: CARDIOPULMONARY RESUSCITATION COMPLICATIONS ENCOUNTERED IN FORENSIC AUTOPSY CASES

Version: 0 Date: 13 Jan 2019

Reviewer: beltramini alexandra

Reviewer's report:

methods: problem with criterion-related validity

The classification into three categories (mild, moderate, severe) isn't based on « gold standard ». And the authors admit that some severity criterion were « arbitrary criterion » p4 l 58 . It would be better to study number of ribs or sternal fractures and number of cardiac, pulmonary or stomach trauma....

No distinction between ADC CRP versus classic CRP or manual mechanical. ADC CRP is known to be more traumatic.

No data on CRP duration. And more the CRP is long more complication are numerous.

Results:

missing many interesting data

% of fractures according to localisation. The classification is based on localization (proximity to the heart) but no result.

p7 l 44 When CPR was performed by more than one person, the injuries were moderate or severe at an equal rate. No %

no data on pericard, pulmonary, cardiac trauma or thrombosis.

% trauma if osteoporosis.

in 100% of cases there were more than 2 people present. : it would have been interesting to know who done thoracic compressions (man-woman) and especially how long, which are recognized risk factors. P 7 l 20 the authors say that the physician can repeat the procedure hence the importance of the criterion related-validity: duration of CRP.
discussion:

This article is an additional incidence study but it doesn't answer to unavoidable complications or forensic problem. Forensic problem is more the lethal complications than the unavoidable complications. Forensic question is if complications of CRP caused the death.

Form:

p 7 l 37-43 = it's about methods not result.

tables 1 and 2 add % and effective N

missing another table with results p 7

lack significant bibliography:

Prehosp Disaster Med. 2018 The Association between Cardiopulmonary Resuscitation in Out-of-Hospital Settings and Chest Injuries: A Retrospective Observational Study. Takayama W1, Koguchi H2, Endo A1, Otomo Y1. = Long duration of out-of-hospital CPR was an independent risk factor for chest injuries

A Systematic Review and Pooled Analysis of CPR-Associated Cardiovascular and Thoracic Injuries


Frequency and number of resuscitation related rib and sternum fractures are higher than generally considered. Králj and al. Resuscitation 2015.

p 7 l 2 why approximately?
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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