Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Figure 1 Compression depth in millimeter compared between dispatcher-assisted bystanders and CFRs (numbers of participants at each timepoint are indicated in squares)

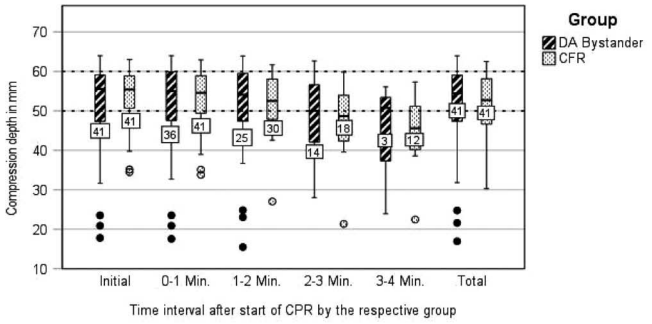
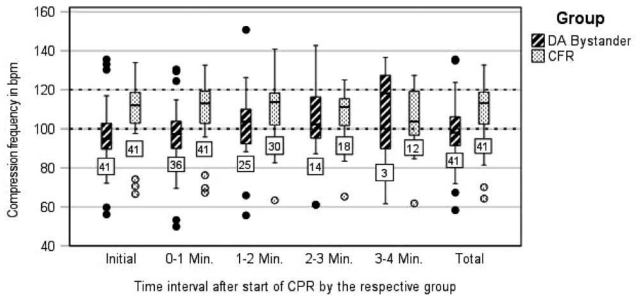


Figure 2 Compression frequency in beats per minute compared between dispatcher-assisted bystanders and CFRs (numbers of participants at each timepoint are indicated in squares)



Conclusions: Although bystanders received instructions by a dispatcher, resuscitation quality was not as high as CFRs'. In addition to expanding DA-CPR, schemes, that dispatch trained volunteers to cardiac arrests, should be promoted.

1. 10.1016/j.resuscitation.2019.02.035
2. 10.1016/j.resuscitation.2021.02.008
3. 10.1161/JAHA.117.005873

P035

Predictors of mortality in Covid-19 patients with acute limb ischemia

Irina Ciumanghel[1,2], Eliza Barbuta[2], Iulian Buzincu[1,3], Adi Ionut Ciumanghel[3], Diana Cimpoesu[1,2]

[1]University of Medicine and Pharmacy „Gr. T. Popa," Iasi, Romania;
[2]Emergency Department, Clinical Emergency County Hospital "St. Spiridon," Iasi, Romania;
[3]Anesthesiology and Intensive Care Department, Clinical Emergency County Hospital "St. Spiridon," Iasi, Romania

Purpose of the study: The aim of this study was to investigate the factors that predict mortality in patients with acute limb ischemia (ALI) and Covid-19.

Material and Methods: In this retrospective study, we included all the patients with ALI and Covid-19 admitted to the Emergency Department of Clinical Emergency County Hospital "St. Spiridon" Iasi between March 1, 2020, and December 31, 2021. Data regarding patient demographics, comorbidities, laboratory and imaging tests were collected. The primary outcome was in-hospital death. Statistical analyses were performed using descriptive statistics, chi-square test and t-test, as appropriate.

Results: The study included 75 patients. Mean age was 69.6 (±10.1) years and 65% were males. 92% of the patients had comorbidities, most common being cardiovascular (81,3%) and metabolic (32%). At admission 61% of the patients also associated Covid-19 pneumonia on chest x-ray or CT scan. Of all patients 20% had upper limb ischemia, 80% inferior limb ischemia (8% had bilateral occlusion). 24% of the patients presented in-hospital cardiac arrest, with no ROSC. 83% of the deceased patients were males. We identify as risk factors for mortality male gender (odds ratio [OR] 3.38, 95% Confidence Interval [CI] 1.003–13.02, P = 0.05), radiological proof of pneumonia (OR 4, CI 1.006–15.91, P < 0.01), liver dysfunction (OR 6.11, CI 1.885–19.85, P < 0.01) and metabolic acidosis (OR 2.9, CI 1.01–8.74, P = 0.05).

Conclusions: Organ dysfunction, radiological appearance of pneumonia at admission and male gender were associated with poor prognosis in Covid-19 patients with ALI.

P036

Impaired cerebral metabolism and elevated injury markers in a clinically relevant cardiac arrest pig model

Lauge Vammen[1,2], Cecilie Munch Johannsen[1,2], Andreas Magnussen[2], Amalie Povlsen[2,3], Søren Riis Petersen[2], Arezo Azizi[2], Michael Pedersen[4], Anders Rosendal Korshøj[2,5], Steffen Ringgaard[6], Bo Løfgren[2,7,8], Lars W. Andersen[1,2,7], Asger Granfeldt[1,2]

[1]Department of Anesthesiology and Intensive Care, Aarhus University Hospital, Aarhus, Denmark;
[2]Department of Clinical Medicine, Aarhus University, Aarhus, Denmark;
[3]Department of Cardiothoracic Anethesia, Copenhagen University Hospital, Copenhagen, Denmark;
[4]Comparative Medicine Laboratory, Aarhus University, Aarhus, Denmark;
[5]Department of Neurosurgery, Aarhus University Hospital, Aarhus, Denmark;
[6]MR Research Centre, Aarhus University, Aarhus, Denmark;
[7]Research Center for Emergency Medicine, Aarhus University Hospital, Aarhus, Denmark;
[8]Department of Internal Medicine, Randers Regional Hospital, Randers, Denmark

Purpose of the study: There is a lack of studies investigating cerebral injury beyond the immediate post-resuscitation phase in a controlled cardiac arrest experimental setting. The aim of this study was to investigate temporal changes in cerebral metabolism and injury in a cardiac arrest pig model.

Materials and methods: One group (n = 11) underwent cardiac arrest and was compared with a sham group (n = 6). All pigs underwent 48 hours of intensive care with 24 hours of targeted temperature management at 33°C. Pigs were monitored with neuron-specific enolase (NSE), cerebral microdialysis, intracranial pressure (ICP)/oxygenation (PTiO2), and a cerebral magnetic resonance scan after 48 hours.

Results: Successful resuscitation was achieved in 7/11 pigs. NSE increased over time (p < 0.001), and median [25th;75th percentiles] levels were higher in the cardiac arrest group versus the sham group at 48 hours (4.2 µg/L [2.4;6.1] vs 0.9 µg/L [0.7;0.9], p < 0.001). The cerebral lactate/pyruvate-ratio was elevated the first 10 hours after resuscitation in the cardiac arrest group. Except for one animal where ICP increased to 46 mmHg, ICP was low (<25 mmHg) with a similar development over time (p = 0.26) with no between-group difference at 48 hours (17 mmHg [14;24] vs 18 mmHg [13;20], p = 0.44). PTiO2 developed similarly over time in the groups (p = 0.09), and was not statistically significantly different at 48 hours (9.4 mmHg [6.6;14.1] vs 14.8 mmHg [12.3;16.2], p = 0.28). Magnetic resonance imaging after 48 hours revealed lower apparent diffusion coefficient in the cardiac arrest group compared to sham group in white matter cortex (689×10^{-6} mm^2/s [524;765] vs 800×10^{-6} mm^2/s [799;815], p = 0.04)