and performance of focused cardiac ultrasound during resuscitation. Recorded variables included admission data, code demographics and diagnosis, therapy outside standard ALS protocol, time to return of spontaneous circulation (ROSC), and outcomes data.
Results Of 33 eligible patients, 12 were excluded due to incomplete cardiac ultrasound reports; 21 patients were enrolled. Cohort demographics included: 57.1% male, average age 64.3 years, average BMI 28.5 kg/m^2, average Charlson score 5.5. Resuscitations took place on the wards (52.4%), ICU (42.9%), or operating room (4.8%). Most patients had an initial unshockable rhythm (71.5%). The most common ultrasound finding was cardiac standstill (47.6%) (Figure 1). The most common intervention as a result of the ultrasound was initiation of a pressor infusion (33.3%), of which 71.4% were ionotropes. Additional therapies included blood transfusion (4.8%), heparin (9.5%), tPA (4.8%), cardiac catheterization (4.8%), and surgery (9.5%). ROSC was achieved in 37.5% of patients; average time to ROSC was 13 minutes. A total 33.3% of patients who underwent ALS were alive at hospital discharge and 28.6% at 1 year.
Conclusion Focused cardiac ultrasound is a feasible adjunct to ALS resuscitation and may assist in the early identification of reversible causes of cardiac arrest. Care must be taken to ensure no interruptions to cardiac compressions are made by performance during pulse checks. Further studies are needed to examine the outcomes associated with its integration into resuscitations.
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P300

Acute intrathoracic gastric herniation as a rare cause of cardiac arrest

DW Hoelen, AL Van Duijn, CL Meuwese, JP Ruurda, MA Sikma
UMC Utrecht, the Netherlands
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Introduction In this case report, we describe a patient who presented with a cardiac arrest as a result of an obstructive shock, which progressed into cardiac arrest, caused by an acute para-esophageal gastric herniation.
Methods Our patient, with a medical history of a laparoscopic repair of a symptomatic diaphragmatic hernia 6 months prior, presented herself at the emergency department with pain in the upper abdomen and nausea. The physical examination, laboratory tests and X-ray of the thorax were normal and she was sent home. Twenty-four hours later paramedics were summoned to our patient because of increased complaints. On arrival of the paramedics she had a normal electrocardiogram (ECG) and during the transfer from her bed to the stretcher she collapsed due to pulseless electric activity (PEA), for which cardiopulmonary resuscitation was started. Sinus rhythm and output was regained after several minutes and the patient was transported to the hospital. At arrival in the hospital, the X-ray of the thorax showed an intrathoracic stomach and a significant mediastinal shift to the right.
Results After emergency laparotomy, which concerned correcting the gastric herniation and resection of an ischemic part of stomach, the patient remained hemodynamically stable. Cardiac ischemia was ruled out based on ECG, laboratory findings, cardiac ultrasound and cardiac computed tomography. The ultrasound in the emergency department did show a distended right ventricle and normal left function, which disappeared later (after repositioning the stomach), which is evidence for the mediastinal shift as a cause for the PEA.
Conclusion We are the first to describe a patient requiring cardiopulmonary resuscitation for progressive obstructive shock, due to an intrathoracic stomach. Especially after a laparoscopic repair of a diaphragmatic hernia, this is a rare cause for shock and cardiac arrest, which requires a different medical approach.

P301

Implementation of dispatcher-assisted cardiopulmonary instructions using the ALERT protocol: preliminary results in Belgium

A Ghuysen[1], S Stipulante[1], M El FAssi[1], A Donneau[2], V D'Orio[1], R Tubes[1]
[1]CHU – Ulg Liège, Belgium; [2]Liège University, Liège, Belgium
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Introduction Early bystander cardiopulmonary resuscitation (CPR) is a key factor in improving survival from out-of-hospital cardiac arrest (OOH-CA). The ALERT algorithm, a simple and effective compression-only telephone CPR protocol, has the potential to help bystanders initiate CPR. This study evaluates the effectiveness of the implementation of this protocol in the Liege dispatching centre.
Methods We designed a before-and-after study based on a 3-month retrospective assessment of the adult victims of OOH-CA in 2009, before the implementation of the ALERT protocol in the Liege dispatching centre, and the prospective evaluation of the same 3-month period in 2011, immediately after the implementation of this protocol. Data were extracted from ambulance, paramedical and medical intervention teams files, as well as the audio recordings of the dispatching centre.
Results There were 233 OOH-CAs detected in the first period and 235 in the second. Victims were predominantly male (59%, both periods), aged 66 and 64 years, respectively. Callers were family members in 52% in 2009 and 64% in 2011. In 2009, only 9.9% victims benefited from bystander CPR, while there were 22.5% in 2011 ($P < 0.0002$). Reasons for protocol underuse were: assistance not offered (42.3%), caller remote from the victim (20.6%) or emotionally distressed (15.5%). Mean no-flow time decreased from 253 seconds in 2009 to 168 seconds in 2011 (NS). Ten victims were admitted in ROSC to hospital in 2009 and 13 in 2011 ($P = 0.09$).
Conclusion Using the ALERT protocol in the Liege dispatching centre significantly improved the numbers of patients in whom bystander CPR was attempted. Dispatchers must embrace this new opportunity to help callers and be encouraged to accept the responsibility of initiating such assistance.
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P302

Prehospital epinephrine administration and survival among patients with unshockable initial rhythm after out-of-hospital cardiac arrest

Y Goto[1], T Maeda[1], Y Goto[2]
[1]Kanazawa University Hospital, Kanazawa, Japan; [2]Yawata Medical Center, Komatsu, Japan
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Introduction Epinephrine has been a cornerstone of cardiac resuscitation and advanced cardiac life support since the 1960s. However, there is little evidence from clinical trials that epinephrine administration after out-of-hospital cardiac arrest (OHCA) improves long-term survival. There would be subsets of patients for whom epinephrine administration is in fact beneficial. Our objective was to determine whether prehospital epinephrine administration would improve survival at 1 month in OHCA patients with unshockable initial rhythm.
Methods We analyzed data for 383,045 adult OHCA patients with unshockable initial rhythm, from a prospectively recorded nationwide Utstein-style Japanese database for 2007 to 2010. We divided these patients into two cohorts: prehospital epinephrine administration cohort (n = 30,237) and non-epinephrine administration cohort (n = 352,808). The endpoints were 1-month survival after OHCA, prehospital return of spontaneous circulations (ROSCs), and 1-month survival with favorable neurological outcome (Cerebral Performance Category (CPC) scale, categories 1 to 2) at 1 month.
Results The rate of 1-month survival was 3.72% for the epinephrine administration cohort and 2.49% for the non-epinephrine administration cohort, 17.9% versus 3.0% for prehospital ROSC, and 0.57% versus 0.77% for CPC 1 to 2 (all P <0.0001). Positive associations were observed between epinephrine administration and 1-month survival (adjusted odds ratio (aOR), 1.18; 95% CI, 1.11 to 1.27), and prehospital ROSC (aOR, 5.50; 95% CI, 5.29 to 5.72; all P <0.0001). Negative association was observed between epinephrine administration and CPC 1 to 2 (aOR, 0.56; 95% CI, 0.48 to 0.66; P <0.0001). Multivariate logistic analysis revealed that age (<66 years; aOR, 4.31; 95% CI, 2.47 to 8.01), total dose