were found, these results thus highlight the importance of maintaining long-term FU in patients with infarct-like myocarditis.
Disclosure of interest The authors declare that they have no competing interest.

https://doi.org/10.1016/j.acvdsp.2019.01.024

JE19-297

Analgesia with nitrous oxide/oxygen and acetaminophen compared to morphine analgesia in patients with acute myocardial infarction: Results from the SCADOL II clinical trial

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Background The safety of morphine use has been questioned in the management of ST Elevation Myocardial Infarction (STEMI). Are there other analgesics that are at least as effective without adverse effects?
Purpose Evaluate the non-inferiority of nitrous oxide/oxygen plus acetaminophen versus morphine in pre-hospital patients with STEMI.
Method Multi-center, randomized, non-inferiority cluster study. Thirty-eight mobile intensive care unit centres were randomized. Inclusion criteria: patients with STEMI and pain intensity score ≥ 4 on the numerical rating scale (NRS). Outcome: proportion of patient with NRS ≤ 3, 30 minutes after starting analgesia without adding morphine in the nitrous oxide/oxygen group. Expected or unexpected events were measured at 30 minutes and 1 month. Estimated number of subjects: 684. Per protocol (PP) and intention to treat (ITT) statistical analyses were planned. A non-inferiority margin was specified as an absolute difference of -10% in proportions. The cluster design of the trial was taken into account through generalised estimating equations.
Results A total of 684 patients were included in ITT analysis and 644 in PP analysis. Pain relief was obtained in 73.6% patients in the morphine group versus 51.7% patients in the nitrous oxide/oxygen group in the PP analysis. The absolute risk difference was -21.7% (95% CI -29.6 to -13.8) and was below the non-inferiority margin of -10%. The incidence of expected and serious adverse events were 10.2% and 3.5% respectively in the morphine group versus 13.2% and 6.2% in the nitrous oxide/oxygen group.
Conclusion Oxide/oxygen plus acetaminophen is inferior to morphine analgesia in patients with STEMI. Adverse effects were not different between the groups.
Disclosure of interest Consulting fees/honoraria roches diagnostic, Astrazeneca, Sanofi, Daiichi.

https://doi.org/10.1016/j.acvdsp.2019.01.025

JE19-305

Extracorporeal membrane oxygenation in patients with pulmonary embolism

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Background The role of veno-arterial extracorporeal membrane oxygenation (ECMO) remains ill defined in patients with high-risk pulmonary embolism (PE). We investigated the outcomes in patients with high-risk PE undergoing ECMO according to the initial therapeutic strategy.
Methods Patients from 9 centres with high-risk PE undergoing ECMO for cardiac arrest or persistent shock were included. We compared patients according to treatment strategy (systemic thrombolysis, surgical embolectomy, or no reperfusion therapy). The primary outcome was all-cause 30-day mortality. Secondary outcomes were successful weaning from ECMO and major bleeding.
Results From January 2014 to December 2015, 52 patients (mean age 47.6 years) underwent ECMO for refractory cardiogenic shock ($n=13$, 25%) and cardiac arrest ($n=39$, 75%), of whom 18 (46%) had ECMO initiated during cardiopulmonary resuscitation. Overall 30-day mortality was 61.5% (32/52): 76.5% (13/17) in patients treated with fibrinolysis, 29.4% (5/17) in patients treated with surgical embolectomy, and 77.8% (14/18) in patients who received ECMO alone ($P=0.004$). Nineteen (36.5%) patients were successfully weaned from ECMO (5/17 (29.4%) in patients with fibrinolysis; 11/17 (64.7%) in patients with surgical embolectomy, 3/18 (17.7%) in patients with ECMO alone, $P=0.009$). Twenty patients (38.5%) had a major bleeding event in-hospital; without significant difference across groups.
Conclusion Mortality is high in PE patients with ECMO, especially in those undergoing fibrinolysis and in those with no reperfusion. Life-support therapy with ECMO should not be considered as a stand-alone treatment strategy in high risk PE patients, but shows promise as a complement to surgical embolectomy.
Disclosure of interest The authors declare that they have no competing interest.

https://doi.org/10.1016/j.acvdsp.2019.01.026