**Cardiac arrest**

**278 ABSTRACT WITHDRAWN**

A Hernández-Tejedor*, NV González, E Corral, A Benito, MI Vázquez, R Pinilla, SI Montero, F Torres, M Elizondo. SAMUR-Protección Civil, Madrid, Spain

10.1136/bmjopen-2022-EMS.20

**Background** Ventilation affects the internal environment and intrathoracic pressures. Current recommendations suggest the use of mechanical ventilators in non-traumatic out-of-hospital cardiac arrest (OHCA) but their use is not widespread. We aim to compare gasometric parameters depending on the method for mechanical ventilation during OHCA.

**Method** Quasi-experimental study including all patients in OHCA attended by an EMS in a 9-month period with persistence of OHCA three minutes after early intubation. Two groups are established according to the method of ventilation during OHCA (ventilator in IPPV 500 ml x 12 rpm or resuscitation balloon). Demographic variables, initial rhythm, blood gas parameters 15 minutes after intubation or upon recovery of spontaneous circulation (ROSC) -whatever occurs first- and hospital complications were recorded. Continuous variables as mean ± standard deviation. Statistical analysis: comparisons with parametric techniques. Study approved by our ethics committee.

**Results** 167 PCEH were registered but 91 were excluded due to very early recovery (35) or violation of analysis protocol (56). Women 21%, age 63±19 years, shockable rhythm 31%. Groups were analyzed according to ventilation: IPPV (32) or resuscitation balloon (44). In patients with an arterial sample: pH 6.99±0.17 vs 6.99±0.16 (p=0.099); pCO2 67.9±18.8 vs 100.8±60.5 mmHg (p=0.13). With a venous sample: pH 7.01±0.17 vs 6.96±0.16 (p=0.28); pCO2 68.6±25.5 vs 86.5±23.0 mmHg (p=0.01), respectively. No direct ventilator-related complications were registered.

**Conclusion** Ventilation with a mechanical ventilator during OCHA improves ventilatory status compared to the use of a resuscitation balloon. The target sample size has not yet been reached. There were no direct complications. After completing the first phase, a second one will begin, comparing different ventilatory modes.

**Conflict of interest None.**

**Funding** Novo Nordisk Foundation.