

Category :**Respiratory: ARDS**

A279 - The survival of patients treated with extracorporeal hemoadsorption and ecmo analysed in a nation-wide registry.

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Introduction:

Extracorporeal hemoadsorption has received increasing attention in recent years. In particular, therapy with the CytoSorb adsorber has been used more and more frequently. The frequency of use and outcomes of the application in combination with extracorporeal membrane oxygenation (ECMO) have not been assessed in larger cohorts to date. We therefore analyzed all patients treated with veno-venous (V-V) ECMO either with or without CytoSorb in Germany from 2017 to 2019.

Methods:

Using German national records from a nationwide claim data set collected by the Research Data Center of the Federal Bureau of Statistics, all ECMO treatments with and without CytoSorb in Germany were analysed. Between-group differences of patient characteristics and in-hospital outcomes were calculated using unpaired t-test and chi-squared test. To assess the impact of CytoSorb on in-hospital mortality, uni- and multivariable logistic regression analyzes were carried out.

Results:

From 2017 to 2019, out of 7,699 ECMO treatments, 7,015 were done without CytoSorb and 684 ECMO runs were performed with CytoSorb.

When combined with CytoSorb, ECMO was initiated later than in patients without CytoSorb (8.41 vs. 6.98 days after admission to hospital; $p = 0.02$).

Mortality was significantly lower in patients supported with ECMO without CytoSorb as compared to patients supported with ECMO and CytoSorb (51.23% vs. 72.08%; $p < 0.001$). Bleeding events were significantly more frequent in patients with CytoSorb (82.89% vs. 61.34%; $p < 0.001$).

In univariate and multivariate logistic regression analyses the additional use of CytoSorb in ECMO patients was associated with higher in-hospital mortality (univariate analysis: OR 2.46; 95% CI: 1.95 to 3.09; $p < 0.001$; multivariate analysis: OR 2.62; 95% CI: 2.09 to 3.29; $p < 0.001$).

Conclusion:

In this retrospective analysis, ECMO therapy with CytoSorb was associated with higher in-hospital mortality and an increased rate of bleeding events compared to ECMO runs without CytoSorb.