

Category : **Renal: extracorporeal support**

A168 - Advanced organ support (advos) in patients with acidosis and multiple organ failure: subgroup analysis of the registry on extracorporeal multiple organ support

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Introduction:

The objective of this registry (DRKS00017068) is to collect data on real-life treatment conditions for patients for whom multiple organ support with the ADVOS albumin hemodialysis is indicated. This subgroup analysis summarizes the effect of the ADVOS therapy on acid-base parameters.

Methods:

The design of this patient's registry has been described previously [1]. For this analysis, all the patients enrolled until August 31, 2020, were assessed for eligibility. It comprised patients for whom a complete data set for blood gas parameters including pH, serum bicarbonate, pCO₂ and base excess was documented at hospital admission, immediately before (baseline) and immediately after the first ADVOS session, and after the last ADVOS session. Patients with baseline blood pH \geq 7.35 were classified as having "no acidemia", while patients with pH < 7.35 were subclassified into different types of acidosis.

Results:

240 out of 282 patients from 5 study sites in Germany were eligible. 123 had no acidemia, while 119 were subdivided into having metabolic acidosis (34), respiratory acidosis (17), mixed acidosis (62) or compensated acidemia (6).

A total of 971 ADVOS treatment sessions were documented with a median of 3 (IQR: 2, 5) sessions per patient. The median duration of the ADVOS sessions was 19 hours (IQR: 12, 23). Median blood flow rate was 100 ml/min (IQR: 100,150) and median dialysate pH was 7.8 (IQR: 7.4-8.4). Significant differences were observed in the latter between patients with or without acidemia at baseline (7.4 vs. 8.0).

The figure shows the course of blood gas analysis from hospital admission to baseline and after the 1st and the last ADVOS treatments.

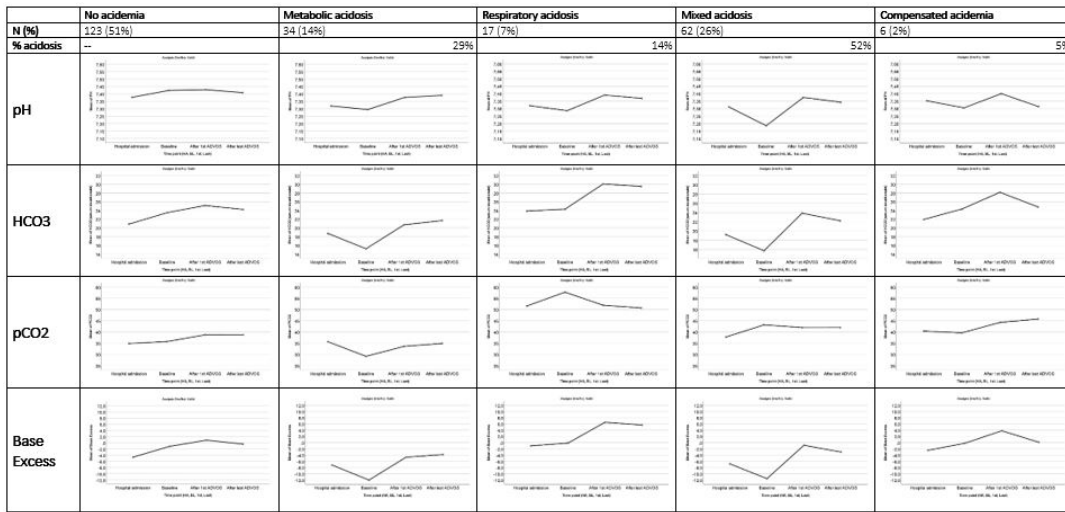
Conclusion:

Overall, an improvement in acid-base parameters could be achieved in patients with acidemia treated with ADVOS, especially in blood pH, serum bicarbonate and base excess. Moreover, in patients with respiratory acidosis, a significant pCO₂ reduction could be observed.

References:

[1] Fuhrmann V, et al. Medicine (Baltimore). 2021;100.

Image :



Course of blood gas analysis from hospital admission to baseline and after the 1st and the last ADVOS treatments. Subgroup analysis in different types of acidosis.