

Category : **Respiratory: ARDS**

A110 - The use of vvecmo in patients with covid 19 (is the first experience).

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Introduction:

Purpose of the study: to analyze the effectiveness of the use of intravenous ECMO as part of the complex therapy of patients with confirmed SARS-Cov-2 infection.

Methods:

vvECMO was used in 19 patients (11 men, 8 women) over 18 years old (50 ± 12.5) with body mass index 32 ± 3.4 and severity of organ dysfunctions SOFA 3 points. Previously, all patients underwent therapy with interleukin-6 receptor inhibitors and glucocorticoids, non-invasive ventilation. The duration of mechanical ventilation before the start of ECMO was 1 ± 0.75 days, PaO₂/FiO₂ index - 68 ± 12 mmHg, pHa were 7.25 ± 0.06 , lactate 2.5 ± 0.6 mmol/l. ECMO was connected according to the femoral vena-jugular vein scheme, volumetric flow rate 3-4 l / min, oxygen 3 l / min.

Results:

Disconnected from ECMO 37% (7), discharged 26% (5), 60 - day survival - 26%. Patients with an unfavorable outcome, compared with those who were discharged, had pronounced leukocytosis $14(10-17)$ versus $8(4-8) \times 10^9/l$, $p < 0.009$) and lymphocytopenia $7 \pm 4\%$ versus $12 \pm 2\%$, $p < 0.007$). After initiation of the procedure, by day 3 in the lethal group: SOFA scores increased from 3 to 9 (in the group of survivors from 3 to 4 ($p < 0.027$)); the level of procalcitonin from 0.2 to 1.45 ng / ml; the number of platelets decreased by 48% (in the group of survivors it increased by 42% ($p < 0.011$); PaO₂/FiO₂ index did not change significantly (an increase of 200% in the group of survivors up to 206 mmHg ($p < 0.011$)). The following complications developed in the group of patients with an adverse outcome: bleeding from cannulation sites (26.3%, n=5), nosebleeds (26.3%, n=5), circuit thrombosis (10.5%, n = 2) and pneumothorax (5.2%, n=1).

Conclusion:

vv-ECMO is an effective method of supporting lung function in patients with confirmed SARS-Cov-2 infection. The presence and progression of a bacterial infection is a predictor of an adverse outcome.