COMPARISON OF DEATH ODDS RATIO IN PATIENTS WITH COVID-19 IN GROUPS WITH CONSERVATIVE THERAPY AND AFTER CYTOKINE ADSORPTION

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Objective: to determine death risks and odds ratio in patients with COVID-19, multiple organ failure on CRRT and conservative therapy versus treatment by cytokine hemoadsorption (HA).

Methods. The investigation included COVID-19 patients with multiple organ failure, subtotal lung injury with ARDS and received CRRT due to acute kidney injury. Patients with ESRD, oncological and severe somatic pathology in history were excluded from the study. Patients were categorized into 2 groups: group 1 received conservative therapy, CRRT and 3 HA with cytokine adsorber HA-330; group 2 received only conservative therapy and CRRT. There is no statistically significant differences in age, interleukin six and CRP levels in comparing these groups. The indication for starting HA was sepsis. Absolute and relative risks, odds ratio and Fisher exact p (one-tailed, two-tailed) were calculated using 2x2 table.

Results.

Investigated groups	Death	Survivors
HA-330 treatment, n=16	7	9
Comparison group, n=14	10	4

HA-330 vs comparison groups: absolute death risk = 0.29, relative risk = 1.9 and odds ratio = 3.2, Fisher exact p = 0,12 (one-tailed) и 0,16 (two-tailed).
The odds ratio shows that the risk of death is higher in the 2d group compared with the HA group, however obtained data are not statistically significant for this groups.

CONCLUSIONS:
So, patients treated with cytokine adsorber and CRRT and patients receiving conservative therapy and CRRT had comparable death risk. As obtained data are not statistically significant for this groups, because of small number of patients. More observations are needed to clarify effects of HA on death risk and to for it's prevention it is necessary: 1) to develop acute respiratory distress syndrome risk scale, 2) to determine criteria for the earlier start cytokine hemoadsorbtion in view of the inflammatory phenotype of the patient, 3) explore HA influence on wider cytokine profile.