

## Renal replacement therapy with the oxiris filter in septic patients with AKI : a cohort study and a propensity – matched analysys.

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### Abstract

Renal replacement therapy( RRT ) with the OXIRIS filter is used in sepsis septic shock with AKI , but few clinical studies compare the adsorbing effect of Oxiris filter on the inflammatory mediators to RRT.

The aim of this study is 1- to confirm whether oxiris decreases cytokines and procalcitonin in sepsis septic shock . 2- This effect is superior to RRT . 3- This translates in a better cardio renal response.

#### Methods:

A cohort study and a propensity – matched analysys included 73 patients admitted to three Intensive Care ( Aurelia Hospital , European Hospital , Tor Vergata – Rome ) with a diagnosis of septic shock . 50 patients were submitted to RRT with oxiris filter and 23 patients to RRT without adsorbing filters . IL6 , Procalcitonin EAA , the cardiorenal indices and SOFA score were compared before ( T0 ) and at the end of the treatments ( T1 ) .All data are expressed as mean  $\pm$ SD. ANOVA one way was used to compare the changes of the variables in the time.  $P < 0,05$  was considered statistically significant.

#### Results:

Of 50 patients submitted to RRT with the oXiris filter 32 could be matched to 22 septic patients who received RRT. IL6 Procalcitonin and Endotoxin ( EAA) decreased in the Oxiris (  $p < 0,01$  ) but not in the RRT group . MAP increased (  $p < 0,01$  ) and noradrenaline dosage decreased in oxiris group (  $p < 0,01$  ) , but non in RRT group. Also PaO<sub>2</sub>/FIO<sub>2</sub> ratio, diuresis , SOFA improved only in the in the oxiris group (  $p < 0,05$  ).

#### Conclusion:

In sepsis / septic shock patients with AKI , CVVHDF with oXirs improves the cardio - renal function and the clinical course . The study confirms that RRT with oXiris filter may be useful in AKI with sepsis / septic shock when other convective / diffusive techniques fail.

### Biography:

Dr. Franco Turani working in Aurelia Hospital, Intensive Care, Head of the department (MD). His skills and expertise in Hemodynamics, Sepsis, Critical Care Medicine, Mechanical Ventilation, Intensive Care Medicine, ICU, Ventilation, Inhalation Administration.

### Publication of speakers:

1. FrancoTurani:TOWARDSABETTERCOMPREHENSION OF ACUTE MESENTERIC ISCHEMIA AFTER CARDIAC SURGERY. AN ANALYSIS OF 33 PATIENTS. Year : Jan 2021.
2. Franco Turani: Continuous Renal Replacement Therapy with the Adsorbing Filter oXiris in Septic Patients: A Case Series Year : Apr 2019.
3. Franco Turani: Sepsis Management with a Blood Purification Membrane: European Experience Year : Jan 2019

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