

IgM enriched immunoglobulins G as adjunctive of antimicrobial treatment in the critically ill in septic shock

Dott. IRENE CIGADA (1), Dott. GREGORIO SPAGNOLIN (1), Dott. PIETRO MANDELLI (1), Dott. CHIARA SPROCCHI (1), Dott. SILVIA SANTINI (1), Dott. RICCARDO COLOMBO (1), Dott. ANTONIO CASTELLI (1), Dott. ALBERTO CORONA (1)

(1) PO Luigi Sacco, Polo Universitario, via GB Grassi 74, Milano / Lombardia, Italia.

Argomento: Altro

Background: Sepsis is responsible of both an immune hyperactivity damage from inflammation and immune suppression and paralysis. A few studies support the role of IgM enriched immunoglobulins G as adjunctive of antimicrobial treatment.

Methods Case-control prospective study. Since 12/2016 to 7/ 2017, patients experiencing a septic shock - admitted with a first 24h SAPS II > 25, associated with a SOFA-score > 4 - underwent treatment with IgM-e-IgG, given for three days at the total dosage of 500 mg/kg. The therapy response was based on clinical, microbiological and rheological data. All cases were 1:1 matched with analogous controls.

Results: During the study period 20 patients were recruited and matched with 20 controls; no differences were found in median age [61 (55-78) vs. 63 (58-77) $p=0.662$], ICU length of stay [14 (5-19) vs. 15 (6-18) $p=0.462$]; duration of mechanical ventilation [7 (5-8) vs. 8 (5-9) $p=0.348$] and antimicrobial treatment [9 (8-11) vs. 11 (12-14) $p=0.552$]. PCT, CRP, WBC, Lactates and SOFA score were daily measured and computed the differences between day of stopping and starting IM-enriched IgG (For the controls such parameters were considered over the same 72 hrs period. No differences were found in the trend of all parameters but SOFA [3.5 (2-5) vs. 0.5 (0-2) $p=0.015$], indicating a quicker and more timely recovery from sepsis related organ failure in the treated patient group. The VLAD computed on the basis of SMR in the two group showed a higher number of saved lives in the treatment group (4.5 vs. 0.7). No differences in survival was found by Kaplan Meier analysis although at 28 days all patients of the treatment group were still alive.

Conclusions IgM enriched immunoglobulins G as adjunctive of antimicrobial treatment may have a role in improving patient outcome, however PRCT are warranted to produce clear hints.

