Toraymyxin in septic shock unresponsive to standard therapy: a clinical experience

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Argomento: INFEZIONI

Background. Toraymyxin, a cartridge containing covalently immobilized polymyxin B (LPS-specific antibiotic) for extracorporeal hemoperfusion, is a well-known adjuvant therapy for septic shock.

Materials and Methods. Patients admitted to the study were managed according to the SSC guidelines for septic shock. After diagnosis (t0) and measurement of endotoxin activity (EAA ≥ 0.6) for patients selected for treatment with Toraymyxin, hemodynamics, renal function, tissue hypoxia and organ dysfunction at t0, 6h, 12h and 72h post treatment were monitored. Any adverse effects to treatment were recorded. Data are expressed as mean ± SD. The differences of the parameters over time were evaluated by Student's t-test: $p < 0.05$ was considered statistically significant.

Results. 27 patients selected for treatment with Toraymyxin were admitted to the study. Of these, 15 received one hemoperfusion (first group) session while 12 received two (second group). At baseline (t0), the population presented with SOFA of 12 ± 2.5 and SAPSII of 60 ± 4 with a predicted mean probability of in-hospital death of 66%. The choice of carrying out 1 or 2 hemoperfusions was based on SOFA, SAPSII and VDI for each patient. In both groups there was a reduction in mortality at 28 days compared to the estimated mortality based on SAPSII. Hemodynamics improved in both groups (inotropic score for the first group 66 ± 32 to 27 ± 16, p=0.02, and from 77 ± 36 to 31 ± 18 in the second group, p=0.03). No adverse events related to Toraymyxin treatment were reported.

Conclusion. The treatment of extracorporeal hemoperfusion with Toraymyxin is a safe and effective therapy. Patients treated with two sessions of Toraymyxin had a mortality of 8.3%, whereas patients treated with one session had a mortality of 26%, both well below the predicted mortality.

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