

**The role of PCT in monitoring the antibiotherapy in septic surgical patient**

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*Background:* Based on the need for rigorous monitoring of antibiotic and a proper assessment of patients with sepsis, procalcitonina as biological marker appears to have significant value, being proposed for both detection and for evaluation of bacterial infection and antibiotic management.

*Material and Methods:* We conducted a prospective study on a group of 73 patients admitted in Surgical Clinic II you SCJU Constanta between 2010-2011, which is included in the study criteria ACCP / SCCM Consensus Conference in 1992. We have made determinations of the PCT, in dynamic, since the admission of patients, with imunocromatographic method, monitoring the antibiotics on the studied group depending on cut-off fluctuations and PCT.

*Results:* The level of procalcitonin reflect the degree of systemic inflammatory response. PCT dosages were performed in 17 patients without inflammation / infection in 21 patients with local infections, 20 with systemic infection (sepsis), 7 with severe sepsis and septic shock 3 / MSOF. In the studied group we excluded 5 patients with associated pathology (on the first day after a major trauma, major surgery, burns, treatment with drugs that stimulate the release of pro-inflammatory cytokines, small cell lung cancer, medullary thyroid carcinoma) in that the PCT was in the absence of an inflammatory process cresct / infectious manifesto. Starting, monitoring and stopping the antibiotic was carried out based on PCT levels. The dosage of procalcitonin (PCT) revealed significantly elevated values in patients with severe sepsis and septic shock / MSOF. PCT was significantly lower in patients with sepsis compared with those with septic shock, and the difference between PCT values in patients with sepsis and severe sepsis was the limit of statistical significance. PCT values were not predictive of death, however.

*Conclusions:* In conclusion, dynamic measurement of PCT may be a predictor for life-threatening infections with antibiotics that can monitor and direct the time and efficiency. The value of PCT as a guide of antibacterial therapy which can reduce mortality and morbidity in surgical septic patients remains to be fully evaluated by future studies, but we can say that the determination of this biomarker could be introduced in the dynamically protocol of tracking the clinical course of septic patients.

**Key words:** SIRS, procalcitonina, severe sepsis, antibiotics, immunomodulation

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