Endothelium as a part of septic multiple organ dysfunction syndrome (MODS): Is endocan an answer?

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Sepsis is not a single disease, but highly heterogeneous syndrome that is the net result of host and pathogen interactions. Severe sepsis/septic shock are advanced clinical conditions representing patient’s response to infection and having high mortality rate. Early evaluation of sepsis stage is one of key survival factors. PCT (procalcitonin), a prohormone of calcitonin originates from calcitonin-I-(CALC-I) gene on chromosome 11 and in septic conditions different organs and cell types are source of PCT. Procalcitonin represents the innate part of host response to microbial infection. Microvascular dysregulation with hyporesponsive vessels and heterogeneous blood flow are important symptoms of sepsis. The vascular endothelium has been shown to play a pivotal role in pathophysiology of sepsis as a potent modulator of immune-inflammatory host response. Endocan (EMS-1) a 50 kDa dermatan-sulphate-proteoglycan is expressed by endothelial cells and can be detected at low levels in the serum of healthy individuals. In septic patients endocan blood levels are likely to be associated with endothelial injury and are reported to be related to severity of illness and outcome. The preliminary results of just started prospective observational study of endocan predictive and diagnostic value compared with PCT, APACHE II, SOFA, in septic (study group) and noninfectious patients (control group) will be presented.

Biography
Malgorzata Lipinska Gediga has completed her PhD in application of PCT monitoring sepsis/septic shock patients in ICU from Medical University in Wroclaw, PL in1999. She is a specialist in anesthesiology and intensive therapy, and is Assistant Professor of Department of Anesthesiology and Intensive Therapy of University Hospital in Wroclaw. She has published on the topic of her professional interest in reputed journals.

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