

LASCCO SA Reports Positive Results for Its New Sepsis Biomarker

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GENEVA, SWITZERLAND -- LASCCO SA and the Lausanne Sepsis Network presented this week encouraging results from a study on pancreatic stone protein (PSP), a new biomarker to predict sepsis-related outcome, during the 50th Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) in Boston, MA.

The data shows that PSP is a good and accurate biological tool to stratify patients with serious infection admitted to the intensive care units (ICUs). PSP blood levels at admission not only discriminate infected patients in two groups with distinct clinical characteristics (ie. severe sepsis or septic shock), but also predict risk of death in those groups. Taken together, these results strongly suggest that a single blood measurement of PSP may identify among all patients admitted for infection to ICUs, the ones susceptible to benefit from aggressive ICU management.

Dr. P. Eggimann and colleagues analyzed 108 ICU adult patients included in the Lausanne Sepsis Cohort, at the Centre Hospitalier Universitaire Vaudois (CHUV), in Lausanne, Switzerland. In sharp contrast with levels in healthy individuals, PSP levels in all 108 patients were significantly increased. No false negatives were reported. Moreover, PSP proved to be a good marker of sepsis severity, as its levels, rising up to 2000 ng/ml, correlated with severity of sepsis. Among the 108 analyzed patients, 33 developed severe sepsis and 75 underwent septic shock. As early as the day of admission to the ICU, PSP levels were significantly higher in serum from patients with a septic shock than in those with severe sepsis. Finally, and more importantly, PSP levels measured at admission were significantly higher in patients who eventually died.

“The results presented by the Lausanne Sepsis Network demonstrate that early PSP serum levels carry important prognostic information that may help physicians to discriminate patients requiring aggressive treatments”, said Frédéric Lajaunias, PhD, Chief Executive Officer of LASCCO. “PSP may be a useful diagnostic tool to predict disease severity, risk of organ dysfunction, and mortality in patients with severe infections. Eventually, it may also prevent unnecessary prolonged antibiotic use”.

About sepsis

Serious infections, also referred to as severe sepsis, are among leading causes of death in ICUs and pose thus major challenges to health care workers. Sepsis is a syndrome characterized by an overwhelming systemic response to infection, which can rapidly lead to vital organ dysfunction, cardiovascular collapse, irreversible multiple organ failure and death. Severe sepsis accounts for 40% of total ICU expenditure. Every year, 18 million individuals die from severe sepsis. In the United States alone, the estimate of cases, a decade ago, was 750'000 per year. This number will likely reach 1 million this year, and despite tremendous research, increasing efforts, and therapeutic progresses, mortality rates from sepsis remain disappointingly high, ranging between 30% and 50%.

About PSP

PSP is a pancreatic protein supposed to play a protective role during regenerative processes. The first evidence of the potential of PSP to serve as a marker for the diagnosis of sepsis came from a study involving polytraumatic patients that showed that PSP levels markedly increased in the blood of severely injured trauma patients during sepsis. In contrast, PSP levels did not increase in trauma patients without infections. Interestingly, PSP levels rose 3 to 4 days before clinically-confirmed sepsis, suggesting that PSP could be a good candidate to predict sepsis. Moreover, PSP levels also proved to be linked with severity, and could discriminate patients with local infection, from those with sepsis and those with no infection.

About the Lausanne Sepsis Cohort

The Lausanne Sepsis Cohort is a collaborative research project, whose primary goal is to prospectively enroll septic patients admitted to the ICU, gathering epidemiological and relevant clinical data as well as biological samples, including sera, leucocytes and microbiological organisms. Its long-term goal is to identify clinical and biological patterns associated with poor outcome and development of multisystem organ failure. The presented PSP study is one of the multiple projects currently being performed. Other ongoing studies are currently investigating microbial pathogenic factors linked to bad outcome. In summary, all studies conducted in the context of the Lausanne Sepsis Cohort are aimed at better identifying septic patients that could benefit from specifically targeted treatments.

About LASCCO SA

LASCCO SA is a Swiss-based biotechnology company dedicated to the maturation of early-stage biomedical technologies. For more information, visit <http://www.lascco.com>.

Contact:

LASCCO S.A.
Rue de la Rôtisserie 8 - 1211 Geneva 3 – Switzerland
Phone: +41 (0)22 317 8881
Email: info@lascco.com