

## International Conference on **Innate Immunity**

July 20-21, 2015 Barcelona, Spain

### **Interleukin (IL)-8 early predictor of mortality following trauma hemorrhagic shock**

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**Background:** Trauma injury and hemorrhagic shock frequently leads to the imbalance of immune system known as Systemic Inflammatory Response Syndrome (SIRS) and is connected to the morbidity or mortality. Pro and Anti-inflammatory, which play a significant role in the development of multiple organ failure (MOF).

**Objective:** This study investigates the serum cytokines levels in patients with trauma hemorrhagic shock and the association of these cytokines with clinical outcome.

**Design:** Prospective cohort study

**Patients:** A total 70 patients with trauma hemorrhagic shock admitted to the emergency department, level I trauma centre.

**Method:** Peripheral blood samples were collected in each patient for determination of serum cytokines concentration. Samples were obtained within 8 h of post injury with T/HS patients. Standard resuscitation techniques as per Advance Trauma Life Support were used in each patient. Clinical and laboratory data were prospectively collected.

**Results:** High concentrations of circulating IL-6, IL-10, IL-8, IL-12, ( $p < 0.05$ ) were detected in a trauma hemorrhagic shock as compared with healthy control group. At study entry, IL-8 concentrations were higher in non-survivors as compared with survivors T/HS patients but not TNF- $\alpha$ , IL-1  $\beta$ , IL6, IL10. Increased IL-8 value was an indicator of mortality in patients with trauma hemorrhagic shock.

**Conclusions:** In trauma hemorrhagic shock, increased IL-6, IL-10, IL-8, IL-12 are detected while compared to normal healthy control. In these patients, increased IL-8 value in nonsurvivors as compared to survivors and TNF- $\alpha$ , IL-1  $\beta$ , IL6, IL10 do not correlate with clinical outcome. This study suggests a much higher degree of activation of immune-inflammatory in T/HS than in normal healthy control. Increased IL-8 values were found to be reliable markers of mortality following T/HS.

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### **Innate immunity in cardiology: Vessel and valve**

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This lecture will address a variety of topics related to innate immunity in cardiology, and will include discussion of innate immunity in: atherosclerosis; coronary artery disease; coronary artery spasm; aortic stenosis. In addition to these subjects, attendees of this lecture will be familiarized with the need for rigorous and stringent testing of candidate therapeutics, so that only the most promising therapies are advanced to clinical trial evaluation of efficacy when treating patients with cardiovascular disease, especially vessels and valves.

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