

15<sup>th</sup> Annual Congress on

# Kidney: Nephrology & Therapeutics

August 28-30, 2017 Philadelphia, USA

## Ulinastatin: Is it a new therapeutic option for AKI?

**Sonia Gupta**

Kidney Care Hospital &amp; Research Centre Udaipur, India

**Background:** In critically ill patients with AKI, unacceptably high mortality rates reaching up to 50-80% in all dialyzed ICU patients are seen despite the availability of intensive renal support. At present there is no specific or targeted therapy for AKI. The exact molecular pathophysiology of AKI is complex and also multifactorial. Ulinastatin is a multifunctional Kunitz type serine protease inhibitor; it has been shown to exhibit significant renoprotective effects in various models of mechanical and chemical injury. Our premise regarding the use of molecule in AKI was based on the fact that this molecule acts at multiple levels in the sepsis conundrum and can act to stop the cascade and thereby halt the “storm”.

**Aim:** The aim of our study, done in a semi urban nephrology set up, was to find out if using ulinastatin in patients with AKI has any beneficial result on the outcomes in patients with AKI. Ours is a retrospective comparative study done in patients with AKI who were critically ill.

**Method:** We studied a total of 280 patients with AKI who needed ICU care in our hospital in the period between May 2012-Dec 2015. Out of these, 140 patients received Injection ulinastatin 3 doses a day for 5 days, against a similar number of control patients. We included those patients with AKI who had SOFA scores more than 8. We recorded the age and the etiologies of the patients. We recorded the length of stay, need and duration of renal replacement therapy, time to stoppage of renal replacement therapy, need for mechanical ventilation, mortality and post AKI recovery and progression to CKD.

**Results:** The patients who received ulinastatin had a shorter stay in the ICU ( $p < 0.01$  vs control group); also the time to stoppage of renal replacement therapy was shorter ( $p < 0.05$ ). The recovery to renal function was seen in 84% ( $n=118$ ). The progression to CKD was seen in 11% ( $n=10$ ; 20 in control group), of patients. The average number of sittings of dialysis needed were 11 (range 3-20), less number of dialysis were needed in the ulinastatin group. The overall mortality was 26% ( $n=72$ , 39 in the control group).

### Biography

Sonia Gupta has completed her medical education along with the specialization in Nephrology from Institute of Kidney Diseases in Ahmedabad, India. At present, she runs her own kidney hospital Kidney Care Hospital & Research Center Udaipur. She has more than 15 publications to her credit and tries to focus on delivering affordable quality nephrology care to her patients.

drsoniagupta18@gmail.com

### Notes: