

Effects of Sivelestat Sodium Hydrate for Acute Lung Injury Complicated by Stroke

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Abstract : Sivelestat sodium hydrate (SSH), a selective neutrophil elastase inhibitor, is effective in treating acute lung injury (ALI) or acute respiratory distress syndrome (ARDS) associated with systemic inflammatory response syndrome (SIRS). SSH was administered to 14 patients (11 males and 3 females, ranging from 34 to 87 years of age) who were admitted between 2002 and 2008 due to a cerebrovascular accident and subsequently developed ALI/ARDS with SIRS. The modified Lung Injury Score, which evaluated the chest X-ray findings, $\text{PaO}_2/\text{FiO}_2$ and positive end expiratory pressure (PEEP) was analyzed on day 0, 3, 5, 7 after SSH administration to evaluate the outcome of patients treated with SSH. The Lung Injury Score was improved within 3 days in 9 of the 14 patients treated with SSH. SSH was administered earlier in the patients whose Lung Injury Scores improved in comparison to those that did not. This result suggested the possibility that the early administration of SSH may improve the pulmonary function and clinical courses in patients with ALI/ARDS following stroke.

Key words : Sivelestat Sodium Hydrate, Systemic Inflammatory Response Syndrome, Acute Lung Injury, Acute Respiratory Distress Syndrome, Stroke