

中文題目：早期使用活性蛋白質C對嚴重敗血症病人之影響

英文題目：The impact of early administration of recombinant human activated protein C on the outcome of patients with severe sepsis

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**Background:** The evidence suggests that human activated protein C (rhAPC) may decrease mortality in patients who have severe sepsis and a high risk of death. We attempted to investigate the benefit of critically ill patients with severe sepsis receiving recombinant rhAPC in our hospital, especially those who administrated within 24 hours.

**Materials and Methods:** We performed a retrospective, observational study to investigate the impact of different groups receiving rhAPC for severe-sepsis patients in intensive care unit (ICU) from May 2004 to June 2011. The criteria for severe sepsis were a modification of those proposed by Bone *et al.*, and were the following: a known infection or a suspected infection, at least 3 of the 4 criteria of systemic inflammatory response syndrome, and more than 2 organs dysfunction. We divided rhAPC groups into early group (within 24 hours) or late group (between 24 to 48 hours) as comparison. All ICU admissions  $\geq 18$  years of age, receiving rhAPC infusions of 24 $\mu$ g/kg/hr continuously were enrolled. The demographic and clinical data were collected for further survey.

**Results:** Over a seven-year period, a total of 50 patients were enrolled. The average ages and numbers of organ failures at inclusion were  $61.1 \pm 14.2$  and  $3.6 \pm 1.1$ , separately. The hospital mortality rate was 50%. The early group had similar demographic and clinical data except a significantly lower score of Therapeutic Intervention Scoring System (TISS). There was a trend of lower rate of 28-day and hospital mortality in obesity group (39.4% vs. 52.9% and 45.5% vs. 58.8%, respectively,  $p > 0.05$ ). The early group had the trend of lower ICU and hospital stay ( $14.2 \pm 9.0$  vs.  $15.2 \pm 10.8$  and  $24.7 \pm 21.4$  vs.  $25.8 \pm 21.0$ ,  $p > 0.05$ ). The mean hospital cost was also lower in obesity group (NTD622087 vs. NTD641440), though the statistics did not reach significant meaning.

**Conclusions:** In spite of those patients with severe sepsis and multiple organ failures had a high mortality rate, the evidence suggests that the usage of rhAPC within 48 hours may decrease mortality in those patients. Our study also showed that early administration of rhAPC within 24 hours may have a trend of better outcome and hospital expenditure. Further study was warranted to make the conclusion in such critically ill patients.