

中文題目:以血漿 N 端前腦利鈉肽(NT-proBNP)濃度作為急性呼吸窘迫症候群(ARDS)之預後因子

英文題目: NT-proBNP as a Prognostic Factor in Patients with Acute Respiratory Distress Syndrome (ARDS)

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Background: Serum N-terminal Pro-Brain Natriuretic Peptide (NT-proBNP) is documented as a biomarker of heart failure, which has been widely used in the diagnosis, progression and prognosis of cardiovascular diseases. Several studies showed correlation between the serum NT-proBNP level and the severity of acute respiratory distress syndrome (ARDS). This study was aimed to check the predictive power of the serum NT-proBNP levels in our patients with ARDS.

Material and methods: The patients admitted in the adult ICUs of a tertiary hospital in southern Taiwan, who met the criteria of Berlin definition, were collected. The data including age, gender, co-morbidities, organs dysfunction, clinical features, Acute Physiology and Chronic Health Evaluation (APACHE II) score, Lung Injury Score (LIS), ventilator setting, arterial blood gas (ABG) on the day and serum NT-proBNP levels were collected retrospectively. Chi-square test and Nonparametric test (Wilcoxon W test) were used to compare the patients between groups of survival and mortality for 28-day. Cox regression analysis was taken for the predictors of 28-day mortality.

Results: Totally 61 ARDS patients were enrolled. The mortality rate was 55.7%. The patients in mortality group were elder [73 (64-81) vs. 57 (46-67), $p < 0.001$], had higher APACH II score [26 (21-33) vs. 23 (16-24), $p = 0.008$], higher NT-proBNP [3956 (771-9838) vs. 1190 (398-3530), $p = 0.026$], higher incidence of renal failure [16 (47.1%) vs. 5 (18.5%), $p = 0.030$]. PaO_2/FiO_2 was not significant between two groups. Age (per 10) (HR 1.55, $p = 0.002$), NT-proBNP (per100) (HR 1.008, $p = 0.002$) were recognized as the effective prognostic factors of 28-day mortality by Cox regression analysis.

Conclusions: NT-proBNP is an effective prognostic factor of ARDS patients.