

**腹膜透析病患促發炎反應細胞激素與死亡率之相關****Association of Levels of Pro-inflammatory Cytokines and Mortality in Peritoneal Dialysis Patients**

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**Background:** To investigate the predictive role of pro-inflammatory markers in patients just initiating peritoneal dialysis (PD).

**Method and Material:** A total of 50 patients with end-stage renal disease and who underwent incident PD were enrolled in this study. We collected the clinical parameters as well as measured the titers of pro-inflammatory cytokines Interleukin-18(IL-18), Interleukin-6 (IL-6), and Interleukin-1 $\beta$ ( IL-1 $\beta$ ). The outcome of this study was all-cause mortality. A Cox-regression model was used to assess the mortality risk of selected individual markers. The patients were stratified into six groups according to the numbers acquired for each risk marker, including IL-18, IL-6, IL-1 $\beta$ , age, and diabetes.

**Results:** During the near-7 year prospective study, IL-18  $\geq$  804.3pg/mL, IL-6  $\geq$  3.92 pg/mL, IL-1 $\beta$   $\geq$  0.86pg/mL, age  $\geq$  50 years-old, and existence of diabetes were significantly associated with all-cause mortality. Patients with increasing numbers of risk markers of mortality had decreasing survival advantages (P= 0.001).

**Conclusions:** Clinical parameters including age  $\geq$  50 years-old and diabetes and inflammatory cytokines inclusive of IL-18  $\geq$  804.3pg/mL, IL-6  $\geq$  3.92 pg/mL, IL-1 $\beta$   $\geq$  0.86 pg/mL at the start of PD therapy could provide predictions for long-term mortality in the PD population. Survival advantages decreased with increasing numbers of these predictors.

**Key words:** mortality, pro-inflammatory cytokines, peritoneal dialysis

死亡率, 促發炎反應細胞激素, 腹膜透析