

中文題目：腹膜透析患者血中 A-FABP 濃度和罹患周邊動脈疾病風險的關係

英文題目：Serum Adipocyte Fatty Acid Binding Protein Levels and Risk of Peripheral Artery Disease in Patients on Peritoneal Dialysis

作者：鄭穎脩<sup>1</sup>, 蔡任弼<sup>2</sup>

服務單位：<sup>1</sup>大林慈濟醫院內科部, <sup>2</sup>大林慈濟醫院內科部腎臟科

**Background:** Patients with end-stage renal disease (ESRD) are at increased risk for atherosclerotic diseases. Peripheral artery disease (PAD) is a vascular presentation of atherosclerosis characterizing with arterial obstruction of vessels causing peripheral ischemia. Acting as a chaperone in integrating lipid signals and an inflammation mediator, adipocyte fatty acid binding protein (A-FABP) has been found to be involved in the pathogenesis of atherosclerosis, which suggests that A-FABP might be a potential biomarker and predictor of PAD. We embarked on this study to evaluate the relationship between serum A-FABP level and PAD in patients on peritoneal dialysis (PD).

**Materials and Methods** Fasting blood samples were obtained from 66 PD patients. Their ankle-brachial index (ABI) values were calculated and their serum A-FABP levels were measured using a commercial enzyme immunoassay kit. The patients were divided into 2 groups. Patients with left or right ABI values < 0.9 are included in the low ABI group, while the others in control group.

**Results** Compared with patients in the control group, patients in the low ABI group had higher prevalence of diabetes ( $P = 0.045$ ), higher serum C-reactive protein ( $P < 0.001$ ), and A-FABP level ( $P < 0.001$ ), but lower weekly Kt/V values ( $P = 0.014$ ), and lower nPNA values ( $P = 0.034$ ). Multivariate logistic regression analysis of the factors significantly associated with PAD revealed that A-FABP (Odds ratio: 1.038, 95% confidence interval (CI): 1.004-1.074,  $P = 0.030$ ) was an independent predictor of PAD in PD patients. Patients in the low ABI group had significantly higher serum A-FABP level. The receiver-operating characteristic (ROC) curve analysis was applied to estimate the optimal level of A-FABP predicting the PAD of PD patients. The AUC for A-FABP was 0.757 (95% CI: 0.636-0.854,  $P = 0.0004$ ).

**Conclusion** A-FABP is useful in predicting PAD in ESRD patients on PD.