

유기인제 중독으로 인한 급성 신부전환자에서 혈청 Neutrophil Gelatinase-associated Lipocalin의 관찰

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The Monitoring of Serum Neutrophil Gelatinase-associated Lipocalin Who Received CRRT due to AKI After Organophosphate Intoxication

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Background: Predicting recovery of renal function for whom have acute kidney injury supported with renal replacement therapy is one of the top ten questions. Neutrophil gelatinase-associated lipocalin (NGAL), a 25-kDa protein is known as a potential tool for determination of renal replacement therapy initiation but it is not clear as a determination tool for termination. So we investigate the serum NGAL in patients received continuous renal replacement therapy (CRRT) due to acute kidney injury after organophosphate intoxication.

Methods: Ten patients undergoing CRRT after organophosphate intoxication were included in this study. The Serum NGAL levels of the subjects were measured on the start day of CRRT and the stop day of CRRT. The NGAL levels were measured using a research-based enzyme-linked immunosorbent assay with detection limit of 0-1,300 ng/mL. Data are presented as mean±SD for all data and wilcoxon signed ranks test was used.

Results: The average duration of CRRT was 5.60±3.34 days. The serum NGAL level of CRRT on the start day was 717.70±508.79 ng/mL, and that of CRRT on the stop day was 687.70±482.49 ng/mL. There was no statistically significant difference of the NGAL values between initiation and termination CRRT date.

Conclusion: It has shown that the recovery of AKI does not substantially influence plasma NGAL concentration. Therefore it may not need to be measured plasma NGAL levels as an indicator for persistent renal injury or renal recovery in patients with AKI after organophosphate intoxication.

Key Words: 급성신부전, 유기인제 중독, NGAL
AKI, Organophosphate intoxication, NGAL