P-155

지속적신대체요법을 시행받은 급성신손상 환자에서 투석필터 응고와 연관된 변수

고신대학교 의과대학 내과학교실

김예나, 구상건, 신호식, 정연순, 임학

Variables Associated with Circuit Life Span in Acute Kidney Injury Patients Undergoing Continuous Renal Replacement Therapy

Ye Na Kim, Sangeon Gwoo, Ho Sik Shin, Yeon Soon Jung, Hark Rim

Department of Internal Medicine, Kosin University College of Medicine

Background: Continuous renal replacement therapy (CRRT) is the preferred renal replacement therapy option for acute kidney injury (AKI) patients. However, frequent circuit clotting may compromise treatment efficacy and result in blood loss, thus increasing the need for blood transfusion. This study assesses the variables associated with circuit life span in AKI patients undergoing continuous renal replacement therapy.

Methods: We observed patients with AKI who were treated at the intensive care unit of Kosin University Gospel Hospital between June 1, 2006 and October 31, 2012. A total of 421 consecutive patients were included in this study. The patients were divided into 2 groups: circuit life span of >48 h and circuit life span of <48 h. Variables associated with circuit clotting were examined using logistic regression analyses.

Results: Logistic regression analysis indicated that arterial pH, serum calcium, and serum albumin were the variables significantly associated with circuit life span in AKI patients undergoing CRRT.

Conclusion: Our retrospective study showed that lower pH, higher serum calcium levels, and higher serum albumin levels were associated with longer circuit life spans and longer survival. Factors such as hematocrit, platelet count, and type of anticoagulants were not associated with circuit life span.

Key Words: 지속적신대체요법, 변수, 회로
Continuous renal replacement therapy, Variables, Circuit

Tab1. Demographic Data and Clinical Characteristics of the Patients

Variables	All patients (n=421)
Age (years)	64.5 ± 14.0
Male/Female	180/241
APACHE III	85.3 ± 32.1
Venous access site (n,%)	
Right internal jugular vein	371 (88.2%)
Left internal Jugular vein	38 (9.0%)
Femoral vein (Right or Left)	12 (2.8%)
Etiology of acute kidney injury	
Sepsis	149 (35.4%)
Ischemia or shock	197 (46.9%)
Nephrotoxin or radiocontrast	9 (2.2%)
Rhabdomyolysis or hemolysis	5 (1.2%)
Urinary tract obstruction	4 (1.0%)
Multiple myeloma	4 (1.0%)
Tumor lysis syndrome	2 (0.5%)
Others	51 (11.8%)

Table 2. Logistic Regression for Predicting CRRT filter clotting

Variable	OR (95% CI)	P value
Temperature < 35 ℃	2.995 (0.414-21.680)	0.277
pH < 7.1	0.033 (0.001-0.397)	0.010
Hct > 30 %	1.372 (0.360-5.224)	0.643
Calcium > 8.0 mg/dL	0.182 (0.042-0.793)	0.023
Albumin < 3.0 g/dL	3.854 (0.974-15.250)	0.055
Platelet > 300,000 /μL	0.242 (0.031-1.889)	0.176
aPTT < 60 sec	0.288 (0.054-1.534)	0.155
PT < 50 sec	0.659 (0.138-3.152)	0.602
Anticoagulant (heparin)	0.602 (0.148-2.447)	0.478