

대퇴골 골절 환자에서 급성신부전의 위험인자와 임상적 경과

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Risk Factors and Clinical Courses of Acute Kidney Injury in Patients with Femur Fracture

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Purpose: Femur fracture is mostly occurred in elderly patients and highly associated with medical problems such as acute kidney injury(AKI), but there are few reports about AKI in femur fracture patients. So this study was performed to figure out risk factors and clinical courses of AKI in patients with femur fracture by falling.

Methods: We retrospectively evaluated the medical records of 110 patients with femur fracture between November 2006 and December 2011 in Uijeongbu St. Mary's hospital. We investigated the incidence and clinical courses of AKI in femur fracture patients, and we compared the clinical findings between AKI and normal kidney function(NKF) groups.

Results: Of the total 110 femur fracture patients, AKI was observed in 19 patients (17.3%). The peak serum creatinine level in AKI patients was 2.59 ± 1.57 mg/dL. 2 of 19 AKI patients died and 2 patients progressed to chronic kidney disease. When compared to NKF group, the AKI group had higher incidence of elevated LDH (63.2% vs 34.1%, $p=0.020$), ESR (31.6% vs 6.6%, $p=0.008$), and CRP (57.9% vs 46.2%, $p=0.042$). The AKI group also had longer time duration between injury and operation, and post-operation hospital day, and more prescribed ACE inhibitor than NKF group. Multivariate analysis demonstrated elevated LDH, ESR and ACE inhibitor prescription as independent risk factors of AKI in femur fracture.

Conclusions: The incidence of AKI in femur fracture patient was 17.3% and AKI were associated with longer clinical course. Close observation of clinical and laboratory findings are recommended in patients with femur fracture and early management should be performed for reducing the morbidity of AKI patients.

Key Words: 대퇴골 골절, 급성신부전, 임상적 경과

Femur fracture, Acute kidney injury, Clinical courses