

출혈 위험이 높은 환자에서 지속적 신대체 요법 시 항응고제로 Nafamostat mesilate의 사용

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Nafamostat Mesilate as Anticoagulant During Continuous Renal Replacement Therapy in the Patients with High Risk of Bleeding

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Background: Nafamostat mesilate (NM), a synthetic serine protease inhibitor, has been widely used in Korea as an anticoagulant during continuous renal replacement therapy (CRRT). However, there were limited data from randomized study of nafamostat mesilate in patients with bleeding tendency. This prospective study evaluated the efficacy and safety of nafamostat mesilate in CRRT for patients with acute kidney injury (AKI) who were at high risk of bleeding.

Methods: From July 2008 to June 2012, patients with AKI were randomized to receive NM (NM group) or normal saline (control group) as an anticoagulant during CRRT. Patients who fulfilled one of the following criteria were defined as high risk of bleeding: spontaneous bleeding, aPTT >45 sec, PT >17 sec, thrombocytopenia, recent surgery. Primary outcome was to compare treatment efficacy represented by hemofilter life span. Several parameters of safety and survival rate of 30 days and 90days were analyzed as secondary outcomes.

Results: Fifty five patients were included in the study (NM group=31, control group=24). The baseline characteristics were not significantly different between the two groups. The mean hemofilter life span was 31.7±24.1 hrs in the NM Group which was significantly longer than 19.5±14.9 hrs in the control group (p=0.035). The most common cause of filter failure was filter clotting which was significantly higher in control group than NM group (59.6% vs 37.7%, p=0.024). There were no significant differences in transfusion and major bleeding between groups. The patient survival rate of NM group at 30 days and 90 days after initiation of CRRT were comparable to that of control group.

Conclusion: Nafamostat mesilate could be used as anticoagulant during CRRT providing sufficient filter survival without additional risk of bleeding in critically ill AKI patients with bleeding tendency.

Key Words: Nafamostat mesilate, 지속적 신대체 요법
Nafamostat mesilate, CRRT