Abstract

Introduction*:* Acute kidney injury is well recognized for its impact on the outcome of patients admitted to the intensive care unit (ICU) .

The pursuit of improved biomarkers for the early diagnosis of AKI and its outcomes is an area of intense contemporary research; recent studies have demonstrated the utility of FST dose for predicting the severity of AKI, and possibility of administration as a treatment for AKIN I&II.

Methodology: Our study was conducted on eighty consecutive patients in the general ICU of Nasser institute Hospital from July 2014 till July 2015.

Forty of our patients received FST dose while the other forty patients received standard management of AKIN I, II.

Any patient who develops acute kidney injury grade I – Π according to (AKIN) will be subjected to: History taking including (co-morbidity – drug intake), clinical examination., Kidney function tests (KFT) daily, estimated glomerular filtration rate GFR, Potassium, magnesium, sodium and phosphorus follow up daily for three days ., Hemodynamic monitoring (heart rate HR, mean blood pressure BP, central venous pressure measurement CVP within six hours after inclusion, urine output per hour UOP/6hour)**.**

Results: In first 6 hours, there was a statistically significant increase in urine output in group I after 1st&2nd hours (p value= 0.026, 0.008 respectively), as well as cumulative UOP over 6 hours (P value =0.003),as compared to group II**,** Cut off point as regards UOP for detection of progress to AKINIII& dialysis was found to be 325ml in both group with sensitivity 86.7 %, specificity 68% in group I and sensitivity 95%, 95%specificity in group II**.** There was a highly significant difference between the two groups concerning hypotension with 11 patients in group I vs. none in group II with P value =0.001,and there was no significance difference between both groups concerning progression to AKIN III& dialysis with P value =0.260**,**and there was no significance difference between the two groups concerning length of ICU stay with P value =0.621,and according to mortality there was no significance difference between the two group with P value =0.201.UOP in non progressed patients was higher than progressed patients in group I P value 0.001.

Conclusion: Furosemide stress test is a good predictor of severity of tubular damage in early stages of acute kidney injury with no additional privilege over standard management in the treatment of AKI.

Key words:

AKI-Furosemide-Dialysis