Introduction:
Acute kidney injury (AKI) is a frequent complication in critically ill patients and is associated with increased morbidity and mortality. Sepsis is one of the most Common cause of AKI.

Methods:
A prospective study was conducted over 6 months (January 01–June 30, 2018). We included patients with septic shock at admission or at any time during hospitalization. The AKI staging was based on KDIGO criteria. Patients were divided into two groups, a group with AKI (AKI+) and a group without AKI (AKI-). Then we compared the baseline characteristics, laboratory and physiologic data. Patients with AKI (AKI+) were subdivided according to their prognosis.

Results:
Were enrolled 75 patients. The mean (SD) age was 56.43(±18) years. Sex ratio was 1.91. Fifty-two (70%) patients developed AKI. SAPSII and SOFA score in admission were higher in patients with kidney injury [59 Vs 44 points (p= 0.002), 6.5 Vs 4 points ;(p=0.003)] respectively. The serum lactate level was significantly higher in (AKI+) group patients during the first day of septic shock [6.12± 1.38 mmol/l (AKI+)]Vs 4.11± 0.79 mmol/l(AKI-); (p=0.002)] and its clearance was lower [(32±10.99% (AKI+)Vs 61±13%(AKI-);(p=0.001)]. A significant difference was observed in C reactive protein level [224±114 mg/l (AKI+) Vs 124±77 mg/l (AKI-) ; (p=0.004)]. Among (AKI+) patients, KADIGO III was observed in 59.6% of cases. Nineteen (36.5%) patients received hemodialysis. A normal kidney function was recovered in 40.4% of cases. AKI+ patients had a higher occurrence in Disseminated intravascular coagulation (32 Vs 3 patients, p=0.002), acute respiratory distress syndrome (18 Vs 2 patients; p=0.023) and cardiac dysfunction (20 Vs 1 patient, p=0.001). Mortality was higher in AKI group (67% Vs 9%; p=0.001).

Conclusion:
The development of septic AKI was associated with poor outcomes and prognosis. A better understanding of sepsis induced AKI pathway will enable us to develop targeted therapeutic protocols. Newer tools, permitting AKI early detection, may make these therapies more fruitful.