Introduction:
The aim of the current study is to assess the prognostic value of increased troponin on the outcome of patients with septic shock.

Methods:
Retrospective study conducted between 01/01/2017 and 30/07/2017. All adult patients admitted with septic shock were screened for inclusion. Patients with known ischemic heart disease were excluded. Demographic data, baseline clinical and laboratory findings were recorded. Troponin I level on admission and the highest troponin level during intensive care unit (ICU) stay were collected. The echocardiographic findings on admission were reviewed. Two groups (survivors and non-survivors) were compared.

Results:
Thirty-one patients were included in the study. Median age was 71[62-78] years. Median APACHEII score was 19 [16-26]. Troponin I level on admission was 0.06 [0 - 0.43] ng/ml. The highest troponin level during ICU stay was 0.09 [0.36-1.11] ng/ml. Nine patients (29 %) had wall motion abnormalities. Median left ventricular ejection fraction (LVEF) was 55 [30 - 60] %. Median duration of ICU stay was 4 [2.8-12.8] days. ICU mortality was 22.6 %. Troponin level on admission was comparable between survivors and non-survivors (respectively 0.08 [0-0.6] and 0.01 [0-0.16]; p=0.242) whereas the highest troponin during ICU stay was significantly higher in non-survivors (1 [0.36-1.11] versus 0.31 [0.06 - 0.65]; p=0.036). LVEF was comparable between survivors and non-survivors (respectively 55 [29-60] versus 56 [55-58] %; p = 0.547). The highest troponin was not identified by the multivariate analysis as independent factor predicting ICU mortality (OR=1.1, CI95% = 1.1 [0.92-1.16]; p=0.489). The only factor identified by the analysis was acute kidney injury requiring renal replacement therapy (OR=105, CI95% [5.5-198]; p=0.002).

Conclusion:
Increased serum troponin I level is common in patients with septic shock. Our study suggests that the increase of troponin is higher in non-survivors.