Abstract

Purpose:

Pentraxin 3 is long pentraxin subfamily play an important role in innate immunity and markedly increase during severe sepsis and septic shock, ptx 3 is useful as diagnostic marker and prognostic of clinical outcome and coagulopathy in patient with severe sepsis and septic shock.

Patients and methods:

This study was conducted on 30 patients were diagnosed to have severe sepsis and septic shock , patients above 18 years. Patient were diagnosed mixed types of shock, steroid intake or malignancy excluded from this study. Sample collected at day 1,3,7. Ptx 3 level assayed by quantikine ELISA 3\TSG-14 immunoassay and result calculated.

Results :

Ptx 3 was statistically significant higher in day 7 in non survivors than survivor (4±1,5 VS 12±3) p value 0.0001. Rising ptx 3 was statistically significant with mortality P value 0. Also ptx 3 level was statistically significant with overt bleeding in day 7 (6±4 VS 11.5±3) P value0.005. Rising ptx3 was statistically significant with overt bleeding P value 0.00.There was statistically significant good correlation between ptx 3 changes and INR changes (R=0.7

and P=0.0007). Also there was good correlation between ptx3 changes and platelets changes R=0.7 and P=0.0003.

Conclusions :

PTX 3 can be used as predicting factor for outcome and daily follow up for PTX3 level in septic patients .Patients with severe sepsis or septic shock with rising level of PTX 3 have worse prognosis. PTX 3 is a predicting factor for coagulopathy in septic patients. There was high probability of bleeding in patients with rising PTX3. More studies with bigger number of patients are needed to evaluate the relation between PTX3 level and coagulopathy. kits for PTX3 measurement should be available for better control of sepsis and coagulopathy in ICU.

Key words: severe sepsis, septic shock, PTX 3, coagulopathy, clinical outcome