ABSTRACT

DECREASE IN ABSOLUTE EOSINOPHIL COUNT AS A RELIABLE MARKER OF MORTALITY IN PERFORATIVE PERITONITIS

INTRODUCTION

Peritonitis is the commonest cause of sepsis in developing countries. Despite the treatment measures, mortality rates are still high (upto 40%).A rapid and persistent decrease in the numbers of circulating eosinophils is a distinctive aspect of physiological response to acute inflammation. Eosinopenia (<150 cells/dl) may be the result of migration of eosinophils into the inflammatory site due to release of the chemotactic factors. Many recent reports have shown that eosinopenia as a marker of sepsis. This promoted us to assess the diagnostic value of eosinopenia as mortality marker.

AIM OF THE STUDY:

To assess the prognostic value of eosinopenia in perforative peritonitis.

MATERIALS & METHODS:

This is a Prospective non randomized study conducted in the Dept of General Surgery, Stanley Medical College between Sep 2013 to Sep 2014. 100 patients with perforative peritonitis of age group 15-90yrs were chosen.Inclusion criteria-Patients with perforative peritonitis (diagnosed by clinical and radiological methods).Exclusion criteria-spontaneous bacterial peritonitis, malignant perforation, traumatic perforation, non-resusticable patients & post surgical leak.

Method of collection of data:

Details like Age, Comorbid illness, Perforation -Operation interval, Blood pressure, Heart rate and Creatinine (JABALPUR PROGNOSTIC INDEX) are recorded on admission.5ml of venous blood drawn with EDTA for Absolute eosinophil count and C-reactive protein measurement.All patients were treated with conventional surgery after optimizing their general condition.

Patients were followed postoperatively and categorised into two groups(mortality and survival group).Survival or inpatient Mortality is considered as the end point of this study.Jabalpur prognostic score, AEC and CRP levels were compared between these two groups.

RESULTS:

All values were expressed as mean ± standard deviation and p-value is calculated using t-test or Mann-Whitney tests. P value <0.05 is taken as significant.ROC analysis was carried out for diagnostic accuracy of various parameters as expressed by area under the receiver operating characteristic curve (AUROC); an AUROC 1.0 was considered perfect discrimination and 0.5 was considered equal to chance.

The AEC, CRP and JPS scores differ significantly between the two group.AEC was found to have the highest discriminative value AUROC 1.0 compared to CRP and JPS.

CONCLUSION:

AEC is a reliable marker of survival and it allows timely identification of high risk patients of perforative peritonitis .