

POSTER PRESENTATION

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# Mean platelet volume as a marker of sepsis in patients admitted to intensive therapy

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## Introduction

The majority of patients admitted to a intensive care unit has signs of systemic inflammatory response (SIRS) with or without sepsis. Since the difference between morbidity and mortality of these two populations is very different is a priority to have markers in order to early differentiate between SIRS with sepsis (S+) and SIRS without sepsis (S-).

## Objectives

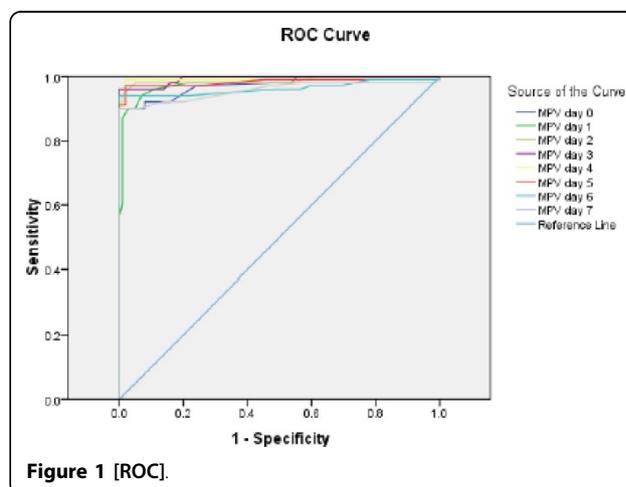
To investigate the usefulness of the Mean platelet volume (MPV) for differentiating between S- and S+.

## Methods

Admitted patients with SIRS signs admitted to two intensive therapies from January 2012 to December 2014 were prospectively evaluated and classified in S- and S+ according to the results of blood cultures, imaging studies, procalcitonin > 2 ng / mL and the opinion of two certified intensivists outside the study.

## Results

A total of 202 cases were included. Gender distribution with 51% (103) females. With a mortality of 12.4% (n = 25). With 50% (n = 101) of the population in the S+ group and 50% (n = 101) in the S- group. The only statistically significant differences between the two groups was the SOFA score: S- 8 +/- 2; S+ 11 +/- 3 (p < 0.05) and mortality, where all the cases were reported in S+. ROC analysis of MVP was conducted with a cutoff value of < 7.7 fl within day 0 AUC 0.974 (CI 0.955-0.994, p < 0.05), at day 1 AUC 0.970 (0.961-0.997, p <



0.05), at Day 2 AUC 0.987 (0.971-1.00, p < 0.05), and at Day 3 AUC 0.941 (0.903-0.978, p < 0.05).

## Conclusions

MVP is a useful tool to differentiate between patients with sepsis and those without sepsis. The best way to rule out sepsis is with MVP < 7.7 fl at days 0 and 3.

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