A128 - Prognostic value of mean platelet volume in septic patient: a prospective study

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Introduction:
Mean Platelet Volume (MPV) has been reported as a valuable marker of inflammatory diseases. The aim of the current study is to assess the prognostic value of MPV in septic patients.

Methods:
Prospective study including all patients admitted to the intensive care unit (ICU) with sepsis or septic shock. Demographic, clinical and laboratory data were collected. The MPV was checked on admission and on day 3. Two groups were compared: Survivors and non-survivors.

Results:
Thirty-four patients were included. Median age was 69[62-77] years. sex-ratio was 1.8. Median APACHEII score was 21[16-28]. Platelets count on admission was 264[177-391] with a MPV of 8.4[8-9.3] FL. On day 3, platelets count was 183[101-265] with a MPV of 8.6[8-9.4] FL. MPV increased on day 3 in 19 patients (55.9 %). Mechanical ventilation was required for 20 (58.8 %) patients and CRRT was required for 14 (41.2 %) patients. The ICU length of stay was 7[3-12] days. Twelve patients died in the ICU (35.3 %). Survivors were younger than non-survivors (66[60-76] versus 73[69-86] years; p = 0.016) and had lower APACHEII score (20[15.8-25.5] versus 27[20-33.5]; p = 0.04). MPV on admission and on day 3 were comparable between the two groups (respectively 8.3[8-9.5] versus 8.5[7.6-9.3] FL; p = 0.999 and 8.5[7.9-9.3] versus 9[8.2-9.6] FL; p = 0.369). However, the platelets count on D3 was significantly lower in the non-survivors (227[132-336] versus 113[44-231]; p = 0.049). The ICU length of stay was 7[3-12] days in survivors and 8.5[3.5-12] days in non-survivors (p=0.623).

Conclusion:
The decrease of the platelet count but not the increase of the MPV was associated with increased mortality in critically-ill septic patients.