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O1190 Comparison of systemic inflammatory response and markers between HIV-positive and HIV-negative patients with sepsis: a descriptive study

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Background: leukocytosis is one of the key elements in criteria for detection of sepsis. Although HIV patients have usually less white blood cell (WBC) count due to diminished number of lymphocytes, specific criteria has not been developed for them in terms of leukocytosis.

Materials/methods: We conducted a cross sectional study in a tertiary medical center in which HIV-positive and HIV-negative patients who were admitted to emergency department and diagnosed as sepsis during hospitalization were studied concerning WBC counts, hemoglobin levels, platelet counts , ESR and CRP levels and clinical vital signs including blood pressure, body temperature and pulse and respiratory rate.

Results: We included 60 HIV-positive and 60 HIV-negative patients with diagnosis of sepsis. Mean WBC count was lower in HIV-positive patients (5327 cells/mm^3 in HIV-positive and 12627 cells/mm^3 in HIV-negative group; p-value=0.000), mean hemoglobin had lower level in HIV-positive patients (9.3 g/dL in HIV-positive and 11.6 g/dL in HIV-negative group; p-value=0.000) and HIV patients had lower average platelet counts (185,000/ml in HIV-positive and 230,000/ml in HIV-negative patients group; p-value=0.033). Mean CRP level in HIV-positive patients was less than HIV-negative group (56 mg/L in HIV-positive patients versus 77 mg/L in HIV-negative patients; p-value=0.015). There were no significant differences in mean ESR levels and vital signs (blood pressure, body temperature, heart rate and respiratory rate) between two groups.

Conclusions: WBC count is not a reliable variable for detection of sepsis in HIV patients, but other elements of systemic inflammatory response syndrome (SIRS) criteria including body temperature, heart rate and respiratory rate are more authentic for this purpose.