

# Immunological defects in septic shock. Deficiency of natural Killer cells and T-lymphocytes Defectos inmunológicos en el shock séptico. Deficiencia de células natural killer y de linfócitos T.

Puente,

Miranda,

Gaggero,

Maturana,

Godoy,

Salazar,

Sepulveda,

It is well known that an immunosuppressive response occurs after acute trauma. Some cellular mediators participate in the pathogenesis of septic shock. However, the exact role of the lymphocyte subsets and natural killer (NK) activity in this condition is not clear. We studied NK cytolytic activity through a  $^{51}\text{Cr}$  liberation assay using K-562 target cells in 20 patients with initial septic shock (10 men and 10 females, mean age 41 years old). Lymphocyte subsets CD3 (T3), CD4 (T4), CD8 (T8), CD16 (Leu-11) and CD56 (Leu-19) were also studied by indirect immunofluorescence. Compared to results obtained in 20 healthy volunteers, patient's NK activity was decreased ( $4.6 \pm 3.9$  vs  $26.1 \pm 10$ ,  $p$  less than 0.025), CD16 was lower (10%/187 vs 15%/280 per ul) and CD56 was also lower (6%/120 vs 12%/224 per ul),  $p$  less than 0.05. T lymphocyte subsets were also decreased: CD3 cells (1100 vs 1352 per ul) and CD4 cells (634 vs 873 per ul),  $p$  less than 0.05. Thus, a severe decrease in NK cells and NK