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VIROLOGIA

**ANALYSIS OF IMMUNOLOGICAL RECONSTITUTION AS PREDICTIVE MARKER OF INFECTIOUS RISK IN HEMATOPOIETIC STEM CELL TRANSPLANT RECIPIENTS (HSCTRS)**

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**INTRODUZIONE**

In the present study, relation between immunological reconstitution and infectious risk in hematopoietic stem cell transplant recipients (HSCTRs) was analyzed.

**METODI**

Twenty-three patients undergoing allogeneic HSCTwere prospectively enrolled. Leukocytes, granulocytes, platelets and lymphocytes reconstitution, as well as the incidence of viral opportunisticinfections (OIs), were monitored after transplant.

**RISULTATI**

CD4+and CD8+T-cell counts were low until 180 days post-engraftment, despite the complete reconstitution of leukocytes and platelets. Fifteen patients of 23 (65,2%) showed a CD4+ T-cell count at 30 days after engraftment <100 cells/µl while in the other 8 (34,8%) it was ≥100 cells/µl. In the first group a significantly higher number of patients developed at least one episode of OIs (12/15; 80% vs 2/8; 25%, p=0,0228). The occurrence of treatedHCMV reactivations was higher in this group (10/15; 66,7% vs 2/8; 25%, p=0,0894).Fourteen patients of 23 (61%) showed a NK count at time of engraftment <70 cells/µl while in the other 9 (39%) it was ≥70 cells/µl. In the first group a significantly higher number of patients developed at least one episode of OIs (12/14; 85,7% vs 2/9; 22,2%, p=0,0066). The occurrence of treated HCMV reactivations was higher in this group (11/14; 78,6% vs 1/9; 11%, p=0,0028).HCMV-specific T-cell response against pp65 and IE1 remains low until 90 days post-engraftment. In this period, more than 69% (69,6%) of HCMV-seropositive HCTRs exhibit HCMV reactivation.

**CONCLUSIONI**

Evaluation of immunological response may represent a useful approach for early identification of HSCTRs with high risk of OIs, especially HCMV infection.