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CHARACTERIZATION OF CYTOMEGALOVIRUS INFECTION ON HEMATOPOIETIC STEM CELL TRANSPLANTATION PATIENTS: EXPERIENCE IN A PUBLIC MEXICAN HOSPITAL

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Statement of the Problem: CMV-infection is frequent complication in transplantation, and it produces multiple organ disease. In HSCT, it is difficult to predict time and severity of reactivation, monitoring of CMV-viral-load and valgancyclovir medication are not widely available in Mexico.

Clinical practice: At HRAEB, we realized 32 HSCT in 30 patients from 2015-2018 distributed 9 allogenic (28%) and 23 autologous procedures (72%). Cohort included 11 women (36.6%) and 19 men (63.3%) between 17 and 66 years-old (median67, IQR 28-54). The onco-hematological indications were Multiple-myeloma 30%, NHL 20%, HL 20%, all 10%, and others. Allogenic-transplant performed in 7 patients, 100% receptors and 83% donors CMV IgG+, meanwhile in 14 autologous-transplant 85% patients CMVIgG+, prevalence as reported in global literature. 14 patients (47%): 3-allogenic/11-autologous keep negative CMV-viral-load after transplantation. Asymptomatic-CMV-reactivation after HSCT presented in 15 patients (50%), 57% (n=4) of allogenic-group and 48% (n=11) of autologous-group. The interval between transplantation and positive-CMV-viral-load was 13-84 days (median17.5, IQR14-28). CMV-viral-load on 1st-reactivation episode reported between769-19,991copies/ml (median 2,810 and IQR1426-7038). Autologous-transplant patients received effective preemptive valgancyclovir therapy 4-24 weeks (median8, IQR5-14). Seven patients (23%) developed second reactivation CMV-viral-load between 1,137-11,380 copies/ml (median3.274 and IQR 2,500-4,605) resolved with 5-24 weeks (median8, IQR5-10) valgancyclovir medication. Severe CMV disease reported on two allogenic-HSCT/GVHD-patients, one developed two episodes: liver/lung/colonic-CMV-disease eight-months after transplantation and pericarditis/heart tamponade one-year after transplantation, survivor 3.3-years follow-up. Second patient developed severe CMV colitis and died five months after transplantation. Actually survives 25 patients (83%), follow-up 2-43 months (median20 and IQR7-28), four deaths onco-hematological relapse (one complicated invasive aspergillosis); global mortality 17%. Lymphocyte-counts: 0-4,800 cells/mm3 (median1410 and IQR1, 180-2,050), subpopulation TCD4+ 145-1,131 cells/mm3 (median363, IQR254-486), all patients >2.5 years follow-up TCD4+>500 cells/mm3.

Conclusion & Significance: Our experience denoted high CMV prevalence but less than expected reactivation incidence after HSCT, the importance of universal-prophylaxis for allogenic-group and efficacy of preemptive-therapy in autologous-transplant. Reported too early reactivation and significant frequency for multiple CMV-viremia episodes.

Biography

Diana Perales Martinez is a Consultant in Infectious Diseases at Hospital Regional de Alta Especialidad del Bajio and Hospital Angeles in Leon, Gto, Mexico. She has completed Infectious Diseases Fellow at Instituto Nacional de Cancerologia, Mexico on 2015. She is a Member of American Society of Microbiology and the European Society of Clinical Microbiology and Infectious Diseases and Member of the Mexican Association of Infectology and Clinical Microbiology. She has training stages in Infectious Diseases at Hospital Clinic, Barcelona, Spain and investigational experimental stage at Institut Pasteur, Paris, France. She has been participated in multiple medical congresses and had presentation on different medical forums for continue medical education. She is a Professor Clinical Infectology at Autonomous University of Guanajuato and was a Tutor of diverse clinical cases and thesis for medical specialties students.

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