

Analysis of Splenic Lymphocyte Subsets in Mice after Continuous Irradiation with Low-Dose-Rate Gamma-Rays

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Abstract

Female specific pathogen-free (SPF) mice of three different strains were irradiated with low-dose-rate (20 mGy/22h/day) γ -rays to compare distribution of splenic lymphocyte subsets with those from the age-matched non-irradiated controls. A significant increase in body weights was observed in B6C3F1 mice irradiated for 400 days (8.0 Gy). However, no difference was observed in the other two strains compared with the control mice. No remarkable changes of the weight of spleens and the number of spleen cells were observed. The number of CD8⁺ T cells in the spleen decreased as the dose increased. CD4/CD8 T cell ratios tended to be higher in irradiated mice, compared with the control mice. The proportions of CD4⁺CD25⁺T cells and B220⁺ cells were not significantly different between irradiated and control mice.

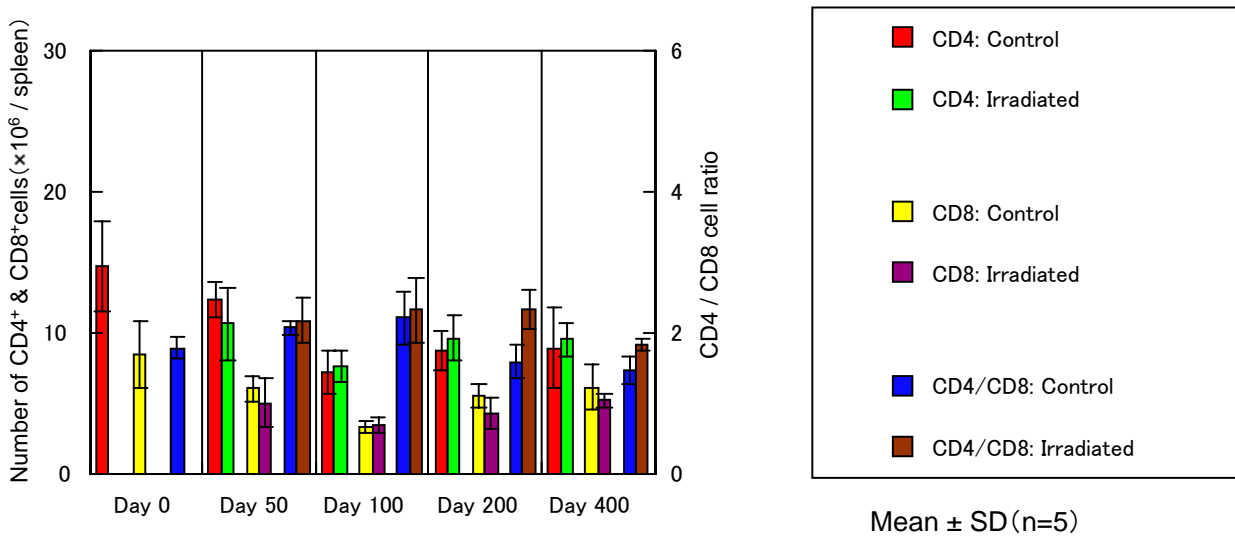


Fig.1 Number of CD4⁺ and CD8⁺T cells in spleen cells from B6C3F1 mice after low-dose-rate gamma-ray irradiation .