Other topics (249-273)

249 Effect on the lipid peroxide level in the post-irradiated aged mice and protection post-irradiated aged mice by dipyridamole.

Noritaka SEINO, Tamio KUSHIHASHI, Hiroei MOTOYA, Ryuutarou UKISU, Noriko OOTUKI, Kyoushichi RI, Toyohiko HISHIDA, Takako UEDA, Hajime YASUHARA, ; Syouwa University, School of medicine 1-5-8, Hatanodai, Shinagawa-ku, Tokyo, Japan

We previously reported the radioproctive effect of dipyridamole using X-ray irradiation in mice. In this study, we mesured the lipid peroxide level of the liver after irradiation in mice aged 2 month, 8 month, 16 month to evaluate the effect of radiation in aged mice. The greatest increase in lipid peroxide level was observed in 8 month aged mice liver. In 16 month aged mice, increase was obseved but not as greate as in 8 month aged mice.

We also examined the level of lipid peroxide in 8 month aged mice liver that were treated with intraperitoneal injection of dipyridamole prior to irradiation to evalute the protective effect of the agent. As a resulte, the lipid peroxid level of 8 month aged mice liver were not increased. We believe that these results reveal the aging effect in irragiation and protection of post irradiated mice by dipyridamole.

250 **Introduction of a normal chromosome 8 into Werner syndrome cells by microcell fusion**

Seiji Kodama [1,2], Mitsuo Oshimura[3], Yutaka Okumura[1] and J. Carl Barrett[2]; [1]Dept . Radiat. Biophysics, Nagasaki Univ. Schl. Med., Nagasaki 852 . [2]Lab. Mol. Carcinogenesis, NIEHS,NIH, RTP, NC 27709, USA. [3]Dept. Mol.Cell Genet., Schl. Life Science, Tottori Univ., Yonago 638.

A putative Werner syndrome (WS) gene has been mapped on chromosome 8. We introduced a normal chromosome 8 or chromosome 9 into SV40 - transformed WS cells via microcell fusion and studied cell growth and spontaneous mutation rate at HPRT locus. The growth rates of the WS cells and their microcell hybrids were similar to that of the control cells. The mutation rates in the control cells and the WS cells were 0.44 - 2.8 $\times 10^{-6}$ / cell / generation and 1.6 - 5.5 $\times 10^{-6}$ / cell /generation, respectively. No difference in the mutation rate was observed between the WS cells and the microcell hybrids. The results indicate that introduction of either chromosome 8 or 9 does not affect the cell growth and the spontaneous mutation rate in the WS cells.