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Adaptive Response in HeLa Cells

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The present study has been performed to elucidate the effect of pretreatment with ultraviolet-C radiation (UV-C), ethyl methanesulfonate (EMS), or bleomycin (BLM) on cell survival and lectin-binding glycoconjugates in HeLa cells. Two assays were employed in this study: cell survival assay and lectin cytochemistry. The survival of cells pretreated with 1 mM EMS following treatment with 10 mM EMS was higher than the survival of cells treated with 10 mM EMS alone. The staining intensity of cells pretreated with 1 mM EMS following treatment with 10 mM EMS was stronger than the staining intensity of cells treated with 10 mM EMS alone. These results suggest that there is adaptive response to EMS on cell survival, and the glycoconjugates of plasma membrane are involved in adaptive response to EMS.

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Cytogenetic analysis of origin-defective simian virus 40-transformed human islet cell.

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A karyotype study of origin-defective simian virus(SV40)-transformed cell was performed using GTG banding. And localization of SV40 gene were detected by fluorescence *in situ* hybridization. Although variations existed from cell to cell, many common features were founded. These cells exhibit a characteristic pattern of chromosome rearrangements or imbalances. Some of chromosomes or chromosome segments present in excess, triploid or tetraploid, and loss of other chromosomes and chromosome segments were also frequent. The average number of chromosomes counted 62.3 and the range was varied from 58 to 66. These cells characterized by ins(1) (q→ 6qter) and some marker chromosomes. These imbalances seems to correlated with metabolic characteristics.