

Protection mechanism of human cell upon radioadaptive response and the interferon antimutagenic action possess

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Radioadaptive response was assessed by the chromosome aberration test in lymphocytes of patients with hereditary diseases, which were earlier characterized as repair-deficient. We examined radioadaptive response simultaneously with radioadaptive response and estimated its effectiveness with the intensity of radioadaptive response. Mechanism of antimutagenic action of interferon is studied well and is expressed in stimulation of excision repair and with new repair pathway probably: DNA double strand break renewal. Antimutagenic action of interferon never is lower than the radioadaptive response level - we came to this conclusion upon the comparative study of radioadaptive response and antimutagenic action of interferon on cells of clinically healthy donors. And this conclusion was confirmed also on repair-deficient cells. Parameters of cell protection against γ -irradiation at radioadaptive response were similar to those obtained in cells pretreated with interferon. These data indicate, first, the possibility that repair pathways and radioadaptive response are independent and, second, that there are common pathways of protection upon radioadaptive response and antimutagenic action of interferon.