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The number of Platinum Atoms Binding to DNA Molecules in SHOK Cells Transformed by Various Oncogenes Treated with  $^{195}\text{mPt}$ -cis-Diammine-dichloroplatinum

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SHOK ( Syrian hamster Osaka-Kanazawa ) cells were transfected with cloned oncogenes (v-mos, c-myc, N-ras, H-ras, K-ras).

These oncogene transfected cells were treated with  $^{195}\text{mPt}$ -radiolabeled-cis-diammine-dichloroplatinum (CDDP). The relationship between lethal effect and the number of Pt atoms binding to DNA, RNA and proteins was examined using the method of Schneider. The mean lethal concentrations ( $D_0$ ) for the cells treated with CDDP at 37°C for 1hr were v-mos ; 16.3, c-myc ; 23.3, N-ras ; 5.7, H-ras ; 40.2, K-ras ; 12.7 $\mu\text{M}$ . These oncogene transfected cells showed the resistance to CDDP except N-ras. The target volume of DNA, RNA and proteins were calculated from the number of Pt atoms combined with DNA, RNA and protein molecules and  $D_0$  values. The cell killing effect of CDDP correlated with the target volume of DNA.