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Inhibitory Effect of Astragali Radix Aqua-acupuncture Solution on Carcinogen-DNA Adduct and Free Radical formations

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The effects of Astragali radix aqua-acupuncture solution (ARAS) and Astragali radix water-extracted solution (ARWS) on the free radical and carcinogen-DNA adduct formations were examined. The effect on the inhibition of phorbol 12-myristate 13-acetate (TPA)-induced free radical formation in HL-60 cells was measured. There is significant inhibition of TPA-induced free radical formation in human leukemic cells with ARAS. At concentration of $0.1 \times$ and $1 \times$ ARAS, the binding of [^3H]B[a]P metabolites to DNA of NCTC-clone 1469 cell was inhibited by 6.9%, 29.3%, respectively. These results suggest that ARAS has chemopreventive potential by inhibiting free radical and benzo [a]pyrene-DNA adduct formations.