

- HOR HUMORAL LEUKOCYTE ADHERENCE INHIBITION (H-LAI) IN THE SURGICAL AND RADIATION TREATMENT OF LUNG CANCER
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 30/30 operable and inoperable lung cancer patients had a mean 26.7% positive H-LAI value before treatment. 8/8 operable lung cancer patients showed normal H-LAI values 7-20 days after operation. Out of 9 inoperable lung cancer patients, 7 responded to high energy X-ray irradiation giving normalized H-LAI after 3 weeks' treatment. Two of them did not respond favourably to irradiation and showed progression of the tumour. The H-LAI values were in accordance with clinical findings.

- HRA AN INITIATOR tRNA-ACCEPTANCE ASSAY AS A RAPID TEST FOR CARCINOGENICITY
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Earlier results of this laboratory showed that carcinogens enhance in a specific way the charging of initiator tRNA with methionine. The reason for this is apparently a covalent modification of tRNA (J.Hradec, Cancer Lett. 18, 199, 1983; J.Hradec and G.F.Kolar, Carcinogenesis, in press). A two-step assay procedure for the testing of carcinogenicity was developed on this basis. Compounds to be tested are incubated with rat liver tRNA, NADPH and microsomal enzymes to convert procarcinogens into active metabolites. In the second step, the charging of this tRNA is tested in the presence of aminoacyl-tRNA synthetases and the enhancing effect is evaluated in comparison with the acceptance of control tRNA preparations. Results with more than 80 carcinogenic or non-carcinogenic compounds (nitrosamines, azo dyes, hydrocarbons), revealed an excellent correlation between the carcinogenicity and the stimulation of tRNA charging not only from the qualitative but also quantitative point of view. The method is rapid, relatively simple and non-expensive.

- HRU IN VITRO AND IN VIVO EFFECTIVITY OF TWO DIAMINOCYCLOHEXANE PT-COMPLEXES WITH DIFFERENT CONTENT OF THEIR STEREOISOMERS
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Two 1,2-diaminocyclohexane (DACH) derivatives were tested: 1,2-DACH-Pt(II) citrate and 1,2-DACH-Pt(II)isocitrate. The effectiveness of complexes containing different ratios of trans and/or cis-1,2-DACH was also compared. The growth inhibiting activity of the citrate derivative against suspension cultures of L1210 cells was slightly higher than that of isocitrate. The activity of the compound increased when a higher proportion of trans-1,2-DACH isomer was present in the compound containing both cis and trans isomers. This result was confirmed also in a L1210 cell subline resistant against cis-DDP. In an animal model (P388 leukaemia) the differences between trans and cis-1,2-DACH were not found. The higher activity of citrate, compared with that of the isocitrate derivative as found in suspension culture, was confirmed both in soft-agar assay and in in vivo tests.