CHA ADDITIONAL STUDIES ON HYDRAZINES OF AGARICUS BISPORUS (AB): ANALYSIS, METABOLISM AND CARCINOGENESIS

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The aims of these investigations were to identify new hydrazines in the cultivated mushroom AB, to study the metabolism of some of these compounds and to reveal the carcinogenicity of the various mushroom ingredients. In the field of analytical chemistry using HPLC, TLC and mass spectrometry we isolated, identified and quantitated two new chemicals in the mushroom: p-hydrazinobenzoic acid (HBA) and β-N-[γ-L(+)-glutamyl]-4-carboxyphenylhydrazine (GCPH). Their amounts were: 10 μg HBA/g and 17 μg GCPH/g of wet mushroom weight, respectively. The metabolism of mushroom arylhydrazines by cytochrome P-450 and prostaglandin (H) synthase were also investigated. Most of these were readily metabolized, pointing to the possibility that reactive carcinogenic metabolites are produced intracellularly. HBA and GCPH are presently under study for carinogenic action. Even though most animals are still alive in both groups, among mice treated with 0.125% HBA in drinking water daily, 10 of the 21 that died had ruptured aortas and arteriosclerosis. Another mushroom ingredient, the sulphate form of 4-(hydroxymethyl)benzenediazonium ion induced in Swiss mice tumours of the subcutis and skin in incidences of 32% and 14% in females and 40 and 4% in males, respectively.

CHE EVIDENCE FOR THE POSSIBLE ROLE OF A NEW FAMILY OF RETROVIRUSES IN AIDS

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A new family of viruses has been isolated from patients with AIDS or with lymphadenopathy syndrome. These viruses belong to the retroviruses group since their main properties are a reverse transcriptase activity, a fast sedimenting RNA, a p25 major core protein which can be immunoprecipitated by patient's sera, a 1.16 density in sucrose gradient and a typical morphology of budding particles in electron microscopy.

They are also characterized by their non transforming potential, since infected T-lymphocytes remain TCGF dependent and have a finite life time, and by their selective tropism for helper/inducer cell subset of human T-lymphocytes. Similar tropism was observed in vivo since virus production occurred only in a $OKT4^+$ subset of lymphocytes from a virus carrier patient and not in the $OKT8^+$ population. Thus, the virus seems to affect the population of T-cells which is involved in the immune dysfunctions involved in AIDS. These viral isolates are not antigenically related to HTLV1 and other animal retroviruses with the exception of Equine Infectious Anemia Virus. The prototype virus isolated from a patient with lymphadenopathy has been termed Lympadenopathy Associated Virus (LAV).

Antibodies to these viruses have been detected by ELISA and by radioimmunoprecipitation assay in a high proportion of sera from AIDS patients or from patients with AIDS related symptoms. These patients include homosexuals, I.V. drug users, hemophiliacs, Haïtians and Zaïrians, i.e. all groups of population hit by the disease.

One of the principal signs of AIDS is the appearance of various cancers (Kaposi's Sarcoma, Brain Lymphoma, Burkitt..).

CHO CELL SURFACE GLYCOPROTEINS OF HUMAN LEUKAEMIA CELLS: ELECTROPHORETIC ANALYSIS AND CHARACTERIZATION BY SOME MONOCLONAL ANTIBODIES

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Cell surface radiolabelled proteins and glycoproteins of human leukaemia cell lines and leukaemia patients' cells were analyzed by one- and two-dimensional electrophoresis. Glycoprotein gp95, predominantly expressed in myeloid-,non-T, non-B and T-lymphoid leukaemias, was generally markedly quantitatively reduced on CLL cells. A monoclonal antibody recognizing a similar glycoprotein was prepared and characterized. CLL cells expressed in their glycoprotein patterns a marked doublet gp29, 35. A series of monoclonal antibodies recognizing a similar structure corresponding apparently to MHC-class II antigens was prepared and characterized. Immunodepletion and sequential immunoprecipitation by these antibodies was utilized to elucidate relationships between antigenic specificites recognized by these antibodies. Finally, a B-lymphocyte associated antigen p30, similarly distributed on cell types, but not identical to MHC class II antigens, was detected with the aid of a monoclonal antibody prepared with a non-T, non-B leukaemia cell line (REH) as immunogen.
