PAS FOETAL ANTIGENS IN MALIGNANT TRANSFORMATION AND IN NORMAL PROLIFERATION

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Malignant transformation is associated with the cellular expression of certain embryonic and foetal antigens. These antigens may appear in the serum of tumour-bearers. Their detection is dependent on xenogeneic antibodies. Furthermore, there are tumour-associated foetal antigens (TAFA) not detectable in the serum that induce an immune response in the autochthonous host. In this case antibody formation and/or cellular immunity are the indicators of foetal antigen production. Cellular sensitization has been demonstrated to a TAFA that is present in 3 M KCl extracts from foetuses of different species of origin. Reactivity against this TAFA can be shown in tumour-bearing mice and humans. Its detection during intensive normal cell proliferation indicates that the effect is not tumour-specific.

PER EFFECT OF THE COMBINATION OF HYPERTHERMIA, X-IRRADIATION AND DIBROMODULCITOL ON SURVIVAL OF P388S TUMOUR-BEARING MICE

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For determination of the best combination of modalities, solid P388S tumour bearing mice were exposed to local X-irradiation with 4, 6, 8, 12 Gy doses, 1, 3, 6 days after transplantation. Median survival time (MST) increased by 29% with 6 Gy delivered 1 day after transplantation. P388S ascites cells were incubated at 37, 42 and 43.5°C for 1 hr and transplanted i.m. The MST increased by 30% with treatment at 43.5°C. Of note, metastasis decreased significantly both in liver and spleen after hyperthermia at 43.5°C. MST increased by 16% after a single treatment of 250 mg/kg dibromodulcitol delivered i.p. 1 day after transplanation. In combined modality treatment, ascites tumour cells were incubated at 43.5°C for 1 hr and transplanted i.m. Then, 1 day later, the animals were treated with 250 mg/kg dibromodulcitol i.p. and exposed to local X-irradiation with 6 Gy 1 hr after drug treatment. The MST increased by 91% and the occurrence of metastasis was prevented completely. The composition and synthesis of nuclear protein was also examined following treatment of tumour cells.

POL MONOCLONAL ANTIBODIES RECOGNIZING MHC-CLASS II ANTIGENS, PREPARED WITH A NON-T, NON-B HUMAN LEUKAEMIA CELL LINE AS IMMUNOGEN

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A series of six monoclonal antibodies of different isotypes were prepared by hybridoma technology after immunization with a human non-T, non-B leukaemia cell line, REH. Immune reactivity of these antibodies with B-lymphoblastoid and lymphoma cell lines and non-T, non-B leukaemia cell lines, but not with myeloid leukaemia cell lines, was demonstrated by indirect immunofluorescence and RIA. Four of these antibodies precipitated a similar cell surface bimolecular glycoprotein complex consisting of two glycosylated chains (gp30,35) as demonstrated by immunoprecipitation from lactoperoxidase radioiodinated, metaperiodate/sodium borohydride labelled and ^{35}S-methionine metabolically radiolabelled cells. These characteristics are typical of class II MHC antigens and correlate with the expression of antigens corresponding to those described on haemopoietic cells from healthy donors and some leukaemia patients' cells. Relationships of antigens detected by these antibodies were studied by immunodepletion and sequential immunoprecipitation experiments.
