HEI PREVENTION OF POSTOPERATIVE METASTIC SPREAD

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We investigated the effect of immunotherapy with virally modified autologous tumour cells on the outgrowth of the metastases after surgical removal of the primary tumour. The highly metastatic murine lymphoma ESb cannot be curatively treated with either surgery or chemotherapy alone. We have demonstrated that with a combination of surgery and immunotherapy, 50-70% survival was achieved in the treated animals, whereas all untreated animals and those which underwent surgery alone, died of disseminated visceral metastases. Surviving animals proved to be immune to a second ESb challenge. Evidence has been obtained concerning the contribution of specific and non-specific immune mechanisms for effective destruction of micrometastases.

HIL A LIBRARY OF BREAST CARCINOMA ANTIGENS DEFINED BY MONOCLONAL ANTIBODIES

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Several series of monoclonal antibodies were raised in mice using pure milkfat globule or mammary tumour membranes as immunogens. Approximately 40 reagents have been obtained, which react with about 15-20 different antigenic molecules, mainly located on the cell surface of normal and transformed mammary epithelial cells. Many of these molecules have never been found before. We have now started to select the most appropriate targets on the cell surface for research on practical problems in oncology, such as prognosis of carcinomas, in vitro and in vivo diagnosis, histogenesis, staging and even therapy. This is done not only for breast carcinomas, but for carcinomas of most other epithelia as well, because many antigens are not organ-specific, yet epithelium-specific and located in normal individuals "outside" the basement membrane and away from blood- and lymph-streams. Only in patients with carcinomas do they appear "inside" the body.

We were successful in determining the primary site of carcinomas in patients with metastases "only", using immunohistology on paraffin sections. We also set up a serum test for follow-up of progression or regression of tumours after therapy. We are now starting in vivo diagnostic and therapeutic work.

HOL SOME ASPECTS OF THE TUBE LAI ASSAY RESULTING FROM OBSERVATIONS IN EXPERIMENTAL ANIMAL MODELS

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Peripheral blood leukocytes (PBL) from some patients with larynx carcinomas reacted in the tube LAI assay only with one or a few antigenic extracts if a panel of extracts prepared from the individual tumours was used. The pattern of reactivity was different in individual patients. This suggested that, in addition to the possible existence of individual tumour-specific antigens, histocompatibility (H) antigens could play a role. When we tested the adherence of PBL from normal non-immunized rats in presence of syngeneic or allogeneic tissue extracts, significant differences in adherence were observed. This discrimination of self and non-self H antigens by PBL from normal rats is fully expressed in newborn animals and cannot be overcome by induction of transplantation tolerance. The results thus demonstrate that a significant proportion of PBL recognize allogeneic H antigens without previous sensitization and that this recognition could influence the tube LAI assay.
