Answer 1:

Bibliographic Information

Surface-modified fine multiple emulsions for anticancer drug delivery. Khopade, Ajay J.; Jain, N. K. Sun Pharma Advanced Research Centre, Baroda, India. Editor(s): Aserin, Abraham. Multiple Emulsions (2008), 235-256. Publisher: John Wiley & Sons, Inc., Hoboken, N. J CODEN: 69KFSI Conference; General Review written in English. CAN 148:175041 AN 2007:1452068 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

Abstract

A review on surface-modified fine multiple emulsions and their use in the delivery of anticancer drugs. Multiple emulsions contg. anticancer agents are discussed, along with drug targeting using multiple emulsions, prepn. of fine multiple emulsions, coating of fine multiple emulsions with concanavalin-A and stealth lipids, characterization of fine multiple emulsions, and evaluation of anticancer activity of fine multiple emulsions.

Answer 2:

Bibliographic Information

Antitumor efficacy of seventeen anticancer drugs in human breast cancer xenograft (MX-1) transplanted in nude mice. Inoue, Katsuhiro; Fujimoto, Shuichi; Ogawa, Makoto. Div. Clin. Chemother., Cancer Chemother. Cent., Tokyo, Japan. Cancer Chemotherapy and Pharmacology (1983), 10(3), 182-6. CODEN: CCPHDZ ISSN: 0344-5704. Journal written in English. CAN 99:98704 AN 1983:498704 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

Abstract

The antitumor activity of 17 anticancer drugs was studied in the treatment of a human breast cancer tumor (MX-1) transplanted into nude mice. The antitumor activity of the drugs was evaluated at the LD10 predetd. in mice as a std. therapeutic dose. Drugs were administered i.v., i.p., or orally, and antitumor activity was assessed by drug-induced growth inhibition measured by calipers. Among the 17 anticancer drugs, the most active compds. (max. inhibition of rate of tumor growth: ≥90%) are mitomycin C, chromomycin A3, vincristine, vinblastine, vindesine, and hexamethylmelamine. Another group of compds. showed moderate activity (max. inhibition rate of tumor growth: 89%-50%), these being adriamycin, daunomycin, mitoxantrone, bleomycin, 5-fluorouracil, 6-thioguanine, and ftorafur. The remaining 4 drugs (peplomycin, cytosine arabinoside, 6-mercaptopurine, and methotrexate) were inactive against the MX-1 tumor. These results suggest that in the nude mouse-human tumor xenograft system there is a good correlation between the antitumor activity of various anticancer drugs and their clin. efficacy; this system is therefore expected to be a useful model for secondary screening.

Answer 3:

Bibliographic Information

Chemotherapy of cell-line-derived human colon carcinomas in mice immunosuppressed with antithymocyte serum. Tibbetts, Lance M.; Chu, Ming Y.; Hager, Jean C.; Dexter, Daniel L.; Calabresi, Paul. Dep. Med., Brown Univ., Providence, RI, USA. Cancer (New York, NY, United States) (1977), 40(5, Suppl.), 2651-9. CODEN: CANCAR ISSN: 0008-543X. Journal written in English. CAN 88:115007 AN 1978:115007 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

Abstract

An in vivo model is described for assessing the antitumor activity of chemotherapeutic agents. Tumors derived from human colon carcinoma cell lines injected into antithymocyte serum (ATS) immunosuppressed mice were used. In this system, both antitumor

effects and host toxicity can be quantitated, permitting calcn. of a therapeutic Index. Compared with other xenograft models, the present system is simple. Expts. are completed in less than 2 wk, and the use of cultured cell lines allows in vitro studies to be performed. The in vitro sensitivities of 1 colon cell line to 22 chemotherapeutic agents and of 4 cell lines to 3 agents is reported. Four drugs used in treating colon cancer (mitomycin C [50-07-7], 5-fluorouracil [51-21-8], BCNU [154-93-8], methyl-CCNU [13909-09-6]) showed antitumor activity in vivo in this system. Each had a low therapeutic index.

Answer 4:

Bibliographic Information

Azaserine and thiopurines. I. Inhibition of S-180 mouse tumor and antibody synthesis. Hansen, H. J.; Vandevoorde, J. P.; Bennett, K. J.; Giles, W. G.; Nadler, S. B. Touro Res. Inst., New Orleans, LA, Journal of Laboratory and Clinical Medicine (1964), 63(5), 801-18. CODEN: JLCMAK ISSN: 0022-2143. Journal language unavailable. CAN 61:35476 AN 1964:435476 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

Abstract

9-Alkylated derivs. (I) of 6-mercaptopurine inhibited growth of ascites S-180 cells when administered in combination with azaserine (II). These I do not appear to be dealkylated, because HClO4 exts. of tumor cells contained only unaltered drug or the S-glucuronide of the drug, but no detectable thiopurine-ribotide. The synergistic action of I administered with II was also observed by phase microscopy studies of cells removed from the intraperitoneal cavity of mice on the 7th day. Normal S-180 cells were present in ascites fluid of mice treated with II, while no undamaged tumor cells were found in aspirates from mice treated with a combination of II and I. II inhibited antibody synthesis of rats challenged with either tetanus toxoid or S-180 heterografts. Imuran given at 10 mg./kg./day did not significantly suppress the antibody response of the rat, but it was synergistic when administered with II. A parallel between the inhibition of ascites S-180 tumor cells and inhibition of antibody synthesis by the rat with II alone or in combination with thiopurines was presented.

Answer 5:

Bibliographic Information

Positive therapeutic interaction between thiopurines and alkylating drugs in human glioma xenografts. Wang A M; Elion G B; Friedman H S; Bodell W J; Bigner D D; Schold S C Jr Duke University Medical Center, Durham, NC 27710 Cancer chemotherapy and pharmacology (1991), 27(4), 278-84. Journal code: 7806519. ISSN:0344-5704. Journal; Article; (JOURNAL ARTICLE); (RESEARCH SUPPORT, NON-U.S. GOV'T); (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.) written in English. PubMed ID 1998983 AN 91152817 MEDLINE (Copyright (C) 2008 U.S. National Library of Medicine on SciFinder (R))

Abstract

We used human anaplastic glioma xenografts to evaluate the therapeutic efficacy of combinations of alkylating drugs, either 1,3-bis(2-chloroethyl)-1-nitrosourea (BCNU), 1-(2-chloroethyl)-3-(2,5-dioxo-3-piperidyl)-1-nitrosourea (PCNU), or procarbazine, and thiopurines, either 6-mercaptopurine (6MP) or 6-thioguanine (6TG). Using growth delay as the endpoint in subcutaneous (s.c.) tumors and increased life span as the endpoint in intracranial (i.c.) tumors, we found that combinations of chloroethylnitrosoureas (CENUs) and thiopurines were significantly more active than either type of agent alone. In contrast, combinations of procarbazine and thiopurines were not significantly more active than procarbazine alone. The therapeutic potentiation of the CENU was greater when the latter was given on the 4th day of the thiopurine treatment cycle than when it was given on the 1st day. Characterization of the interaction between CENUs and thiopurines also revealed a supraadditive therapeutic response at higher BCNU doses in combination with 6TG. Interaction between the nitrosoureas and the thiopurines probably occurs in the guanine base of tumor DNA and has important therapeutic implications.

Answer 6:

Bibliographic Information

Drug-tumor sensitivity matching procedure using diffusion chambers in vivo. Cain B F; Calveley S B; Boreham B A; West C; Price N A; Walker D J; Churchouse M J Cancer chemotherapy reports. Part 1 (1974), 58(2), 189-205. Journal code: 7607105. ISSN:0069-0112. Journal; Article; (JOURNAL ARTICLE) written in English. PubMed ID 4857364 AN 74170356 MEDLINE (Copyright (C) 2008 U.S. National Library of Medicine on SciFinder (R))

Answer 7:

Bibliographic Information

Collateral sensitivity of resistant lines of mouse leukemias L1210 and L5178Y. Schmid F A; Hutchison D J Cancer research (1972), 32(4), 808-12. Journal code: 2984705R. ISSN:0008-5472. Journal; Article; (JOURNAL ARTICLE) written in English. PubMed ID 5014791 AN 72144165 MEDLINE (Copyright (C) 2008 U.S. National Library of Medicine on SciFinder (R))

Answer 8:

Bibliographic Information

Heterotransplantation of Ehrlich ascites tumor cells in rats pre-treated with cytostatics and antimetabolites. Emanuilov E; Golovinsky E Zeitschrift fur Naturforschung. Teil B: Chemie, Biochemie, Biophysik, Biologie (1970), 25(10), 1175-9. Journal code: 0364315. ISSN:0044-3174. Journal; Article; (JOURNAL ARTICLE) written in English. PubMed ID 4394877 AN 71040578 MEDLINE (Copyright (C) 2008 U.S. National Library of Medicine on SciFinder (R))