

MH-15 tumor (antigenic) in this mouse to the P3 tumor (nonantigenic) was 26:1. This ratio is about the same as those for MH-15 tumor-to-liver (22:1) and tumor-to-spleen (30:1). The P3 accumulation is therefore similar to that of the heavily vascularized tissues. Tumor-to-liver (16:1) and tumor-to-spleen (25:1) ratios in mice bearing only the MH-15 tumor were found to be about the same order of magnitude in a separate set of experiments.

DISCUSSION

Our work described herein and elsewhere (13) suggests the feasibility of hybridoma-derived monoclonal antitumor antibodies for tumor imaging. Target-to-nontarget ratios are relatively high, particularly if one waits longer than the first 48 hr. Following administration, the labeled specific antitumor antibody was eliminated from the various nontumor tissues, presumably as a function of the perfusion kinetics. Our findings have remained consistent with numerous animals and with several subsequent labelings.

Observation of our tumor-to-tissue ratios, particularly tumor-to-blood, suggests the necessity for a background-subtraction technique at least during the first 48 hr. In several other sets of experiments (13 and unreported) we have successfully applied a background-subtraction technique using I-123-labeled circulating nonspecific antibody. Although the half-life of the I-123 becomes a limiting factor, an excellent image may be obtained at 48 hr. We have also used Tc-99m-labeled nonspecific circulating antibody, obtaining fair to adequate images. However, the 6-hr half-life of Tc-99m becomes a major constraint.

The specificity of our hybridoma-derived monoclonal antitumor antibody is particularly noteworthy as a potential diagnostic tool in light of previously successful efforts (Table 1) with whole immunoglobulin fractions.

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ERRATUM

In "Status of Gallium-67 in Tumor Detection" by Paul Hoffer, on page 396, right column, last paragraph, lines 11 and 12 should read: "Reports from other investigators, however, have been somewhat less enthusiastic." (*J Nucl Med* 21: 394-398, 1980)