

Quantitative measurement of uptake of radiolabeled monoclonal antibody by means of planar data

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Data obtained from planar images were used to measure the uptake of monoclonal antibody in organs and tumors. Background counts included in the region of interest were eliminated, and the attenuation of the photons emitted by the radionuclide through the intervening tissues was compensated for. The background counts and the intensity of the attenuation were determined from the results of phantom studies and numerical integration with a personal computer. The quantitative uptake of ^{111}In labeled anti-melanoma Monoclonal Antibody (ZME-018) in a melanoma lesion, the liver, and the bone marrow of a patient was measured by the planar method which we developed.

Key words: monoclonal antibody, dosimetry, planar data, numerical integration, background subtraction