

was the suggestion of a different pharmacokinetic profile for patients without tumor secreting the specific antigen TAG-72.

The differences in MRT_B , a widely reported (but poorly understood) parameter should be emphasized. Yokoyama et al. (2) showed that whole-body clearance of ^{131}I -B72.3 correlated with the urinary excretion of activity, while the clearance of ^{111}In -B72.3 was not correlated with excretion. It is important to note the definition of $AUMC/AUC$ (MRT_B). This parameter represents the aggregate residence time of molecules eliminated from the body and not the residence time of the remaining activity.

Several other points are raised by Reilly and Thiessen. We have not investigated in vitro immune complex formation with patients' serum, but we have previously reported that the circulating activity at 8 days after administration appears to be the intact antibody (2). In our report in the *Journal* (3), we noted that similar volumes of distribution for ^{111}In -B72.3 have been reported by others. We look forward to the complete report for ^{131}I -B72.3, soon to be published by Reilly et al. (4).

Lastly, we call attention to the assumptions associated with traditional pharmacokinetics that limit the validity for volumes of distribution and half-life. Accurate pharmacokinetic representation requires that the terminal phase be followed to >90% elimination and that elimination be from a single compartment. We cannot make these assumptions with Mabs radiolabeled with ^{111}In , which have a physical half-life of 2.83 days and are eliminated from both the vascular and tissue compartment. For mean time pharmacokinetics, it is only necessary to assume linear

elimination (not distribution) of activity. The objective of our article (3) was to apply mean time pharmacokinetic methods and models to radiolabeled Mabs. The addition by Reilly et al. (4) of mean time pharmacokinetic studies with Mabs radiolabeled with ^{131}I increases our knowledge of the temporal distribution of Mab activity.

REFERENCES

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2. Harwood SJ, Carroll RG, Webster WB, et al. Human biodistribution of ^{111}In -labeled B72.3 monoclonal antibody. *Cancer Res* 1990;50:932S-936S.
3. Webster WB, Harwood SJ, Carroll RG, Morrissey MA. Pharmacokinetics of indium-111-labeled B72.3 monoclonal antibody in colorectal cancer patients. *J Nucl Med* 1992;33:498-504.
4. Reilly RM, Kirsh J, Gallinger S, et al. Compartmental analysis of the pharmacokinetics of radiolabeled monoclonal antibody B72.3 in colon cancer patients. *Nucl Med Biol* 1992: in press.

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CORRECTION

Due to a production error, Figures 1 and 3 in the article "Correction for Attenuation in Technetium-99m-HMPAO SPECT Brain Imaging" by Kemp et al. were printed incorrectly. The corrected figures are printed below.

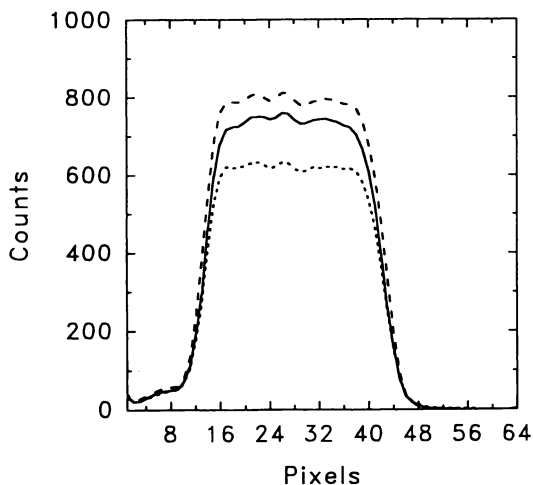


FIGURE 1. Profiles through images of the human skull filled with a uniform mixture of ^{99m}Tc and gelatin. Solid line: image corrected for attenuation with $\mu_w = 0.12 \text{ cm}^{-1}$; dotted line: image corrected for attenuation with $\mu_w = 0.09 \text{ cm}^{-1}$; dashed line: image corrected for attenuation with $\mu_w = 0.12 \text{ cm}^{-1}$ and $\mu_b = 0.15 \text{ cm}^{-1}$. Note the increase in the count density at the center compared to the edges when the image is corrected for water attenuation with $\mu_w = 0.12 \text{ cm}^{-1}$.

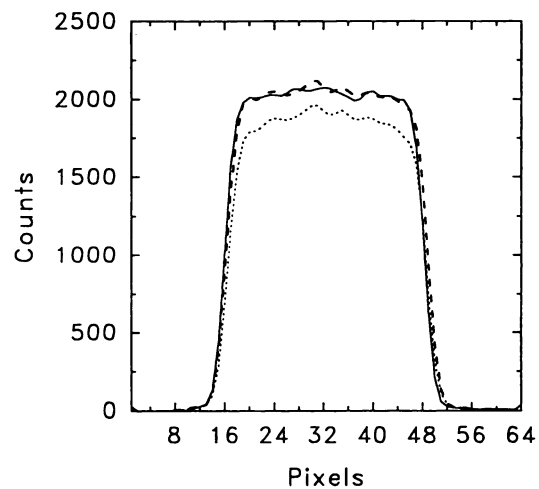


FIGURE 3. Profiles through images of the Jaszczak phantom filled with a uniform mixture of ^{99m}Tc and water. Solid line: phantom without aluminum, $\mu_w = 0.12 \text{ cm}^{-1}$; dotted line: phantom with aluminum, $\mu_w = 0.12 \text{ cm}^{-1}$; dashed line: phantom with aluminum, $\mu_w = 0.12 \text{ cm}^{-1}$; $\mu_a = 0.27 \text{ cm}^{-1}$.