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Reply:

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Reply:

We thank Drs. O'Tuama and Poussaint for their interest in our work (1). Our study group consisted of patients with recurrent tumors and not primary neoplasms. Thus, we did not have the ability to investigate the prognostic capability of thallium-201 before treatment. It would have been difficult to draw any such conclusions from our patient population because we evaluated previously treated patients with recurrent disease, and the effect of thallium uptake after various forms of treatment has not been sufficiently investigated.

Drs. O'Tuama and Poussaint raise a potentially important use of thallium with respect to predicting treatment response and potentially stratifying treatment regimens on the basis of objective quantitative criteria. I would call their attention to the work of Nagamachi et al (2, 3). This group semiquantitatively measured ^{201}Tl to predict the response of squamous cell carcinoma of the head and neck to radiation therapy. The measurements consisted of a ^{201}Tl retention index; the details of this technique are described in their articles. Nagamachi et al (3) found that the pretreatment retention index was predictive of response to radiation therapy. A high retention index was predictive of a reduction in size of 50% or more at the primary site (complete or partial response), whereas a low retention index was predictive of response of less than 50% (3). We recently evaluated the capability of combined imaging before and after the administration of ^{201}Tl in predicting the response of squamous cell carcinoma of the head and neck to nonsurgical organ preservation therapy (4). Our preliminary results showed that persistence of activity in the primary site 6 wk after the completion of therapy was indicative of persistent tumor, whereas loss of uptake was indicative of local control (4). We did not, however, quantify the pretreatment thallium uptake of the tumors in this report (4). This is something that we certainly can consider in future studies to shed more light on the insightful inquiry that Drs. O'Tuama and Poussaint presented.

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