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Hung Q. Dam*
Timothy A. Manzone
Erin C. Grady
Mark Tulchinsky
**Christiana Care Health System*
Section of Nuclear Medicine
4755 Ogletown-Stanton Rd.
Newark, DE 19718
E-mail: hdam@christianacare.org

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REPLY: We would like to thank our colleagues for their interest in and extensive evaluation of our article (*1*). We realize that this subject raises questions, and we tried to answer most of them in our article. Dam et al. have some points of criticism that we will address.

We concluded that diagnostic whole-body scintigraphy (DxWBS) offers no additional information in patients with high-risk differentiated thyroid cancer who have undetectable stimulated thyroglobulin either after thyroid hormone withdrawal or recombinant human thyroid-stimulating hormone (rhTSH) stimulation.

An important argument of Dam et al. is that rhTSH-stimulated DxWBS is less sensitive than DxWBS after thyroid hormone withdrawal. However, the study of Robbins et al. (*2*) showed that the diagnostic accuracy of DxWBS or thyroglobulin between patients prepared by either thyroid hormone withdrawal or rhTSH was comparable. No significant differences were seen in the positive predictive value or negative predictive value. The highest negative predictive value was seen in patients who had low stimulated thyroglobulin levels after rhTSH and negative DxWBS. Furthermore, the use of rhTSH prevents complications after thyroid hormone withdrawal. In our opinion, thyroid hormone withdrawal instead of rhTSH stimulation in preparation for a diagnostic ^{131}I scan results in severe hypothyroidism, causing an unnecessary decrease in quality of life. Also, because thyroglobulin measurement (especially after rhTSH) has become extremely sensitive over the last few years, the purpose of additional imaging techniques is not to detect recurrence but to provide anatomic substrate. The use of rhTSH-stimulated DxWBS is widely accepted and is the standard of care in The Netherlands.

With the increasing sensitivity of thyroglobulin measurements, we advise against performing routine DxWBS during follow-up. We are not in favor of completely eliminating diagnostic ^{131}I, and we surely do not state that iodine avidity is irrelevant in treating patients with differentiated thyroid cancer, as is stated by our colleagues. We state that other diagnostic and therapeutic steps are preferred over DxWBS. Ultrasound of the neck is an important tool to locate recurrent disease. In patients with elevated thyroglobulin levels, a high dose of radioactive iodine can be administered, for example, and a posttherapeutic scan (RxWBS) performed. This scan is more sensitive than DxWBS and shows iodine avidity of possible metastatic lesions. Whenever this scan is negative, ^{18}F-FDG PET would be another diagnostic method to find an anatomic substrate for the rise in thyroglobulin level.

Other comments of Dam et al. were with respect to the staging of patients in our article.

Patients with M1 disease status were excluded because these patients have a more stringent follow-up regimen. On the basis of additional findings, these patients are treated with surgery or high-dose ^{131}I without a prior low-dose scan. DxWBS is never performed on these patients in our clinic, and as a consequence, they could not be included in our analysis. With the results of our current study, we would surely advise against the performance of DxWBS on these patients; instead, we favor treating these patients with therapeutic activities of radioactive iodine followed by RxWBS.

The presence of stage II patients in Table 1 is an error in our article. We apologize for this inconsistency; the distribution of T and N stages is shown correctly. Our final conclusion and recommendation are not influenced by this error.

With respect to the comments on age in the staging of patients with differentiated thyroid cancer, we would like to confirm that age is in fact a prognostic factor. However, it is a prognostic factor for disease mortality (which is very low) and not a predictor for recurrence. The risk factors included in our article and both American and European guidelines are based on the risk of recurrence.

Dam et al. imply in their letter that the use of rhTSH DxWBS should be reserved for low-risk patients; however, both American and European guidelines no longer advise DxWBS for low-risk patients. We strongly disagree with Dam et al. on this point, and routine DxWBS should certainly be abandoned in low-risk patients.

In a prior literature study to evaluate the value of DxWBS in high-risk patients, we found no studies that examined high-risk patients only. Several studies analyzed the additional value of DxWBS, but also in low-risk patients (*3–10*). Most studies found no additional value of DxWBS in their patient group (*3–9*). Verburg et al. (*7*) have already suggested that DxWBS should be omitted also in high-risk patients.

The study by Robbins et al. (*10*), as questioned by Dam et al., favors the use of the diagnostic whole-body scan as a routine procedure for all patients with differentiated thyroid cancer, even low-risk patients. When results were analyzed only for low-risk patients, Robbins et al. found the stimulated thyroglobulin level to have a high negative predictive value, especially when patients had a prior negative WBS result (negative predictive value, 100%). Still they concluded that analysis of both tests together would result in a better diagnostic accuracy than either test alone. It is unclear if patients with known metastatic disease were included in this analysis. Furthermore, it is noteworthy that none of the patients with metastatic disease had thyroglobulin levels below 0.2 mg/L, which is used as a cutoff point for several other studies.

Although we disagree with Dam et al. on some matters, we thank them for fine-tuning our data and sharpening the discussion.

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Siegrid G. de Meer*
Menno R. Vriens
Pierre M. Zelissen
Inne H. Borel Rinkes
Bart de Keizer
**University Medical Center Utrecht*
Heidelberglaan 100
Utrecht, The Netherlands 3508 GA
E-mail: s.g.s.demeer-2@umcutrecht.nl

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