

More Foci of Thyroid Cancer Metastases Are Identified by Thyroid Hormone Withdrawal than by Use of Recombinant Human TSH

Van Nostrand D, et al.

from economic considerations, it would be preferable to use rhTSH in order to avoid symptomatic hypothyroidism. However, this is worthwhile only if the stimulation of rhTSH is effective for activation of thyroid uptake in metastatic tissue. By two methods, this study showed that rhTSH is much less effective than thyroid hormone withdrawal. In a study of lesion dosimetry using ^{123}I in 4 patients with metastatic DTC, Pötzi et al reported that all patients had lesser uptake of ^{123}I under rhTSH stimulation than after hormone withdrawal (1), in agreement with the results of this study.

One criticism of the study is that it was not randomized, although demographic and clinical data in the two groups were very similar. Another criticism is

that a tracer dose larger than 2 mCi might have been more effective in showing positive foci with the rhTSH preparation. One could also criticize it because there were no outcome data with regard to the efficacy of radioiodine therapy for elimination of metastases. However, uptake of tracer radioiodine is essential to determine the need for subsequent ^{131}I therapeutic doses.

The study reinforces my practice of using thyroid hormone withdrawal, rather than rhTSH, for preparation for radioiodine scans when there is a strong suspicion of recurrent disease; the withdrawal also prepares the patient for the therapeutic dose.

— Jerome M. Hershman, MD

Reference

1. Pötzi C, Moameni A, Karanikas G, et al. Comparison of iodine uptake in tumour and nontumour tissue under thyroid hormone deprivation and with recombinant human thyrotropin in thyroid cancer patients. *Clin Endocrinol (Oxf)* 2006;65:519-23.