

LETTERS TO THE EDITOR

Thyroid Remnant Ablation: Questionable Pursuit of an Ill-Defined Goal

There is no doubt that the routine application of 30 mCi doses for the ablation of thyroid remnants after surgery for thyroid carcinoma should be abandoned (1). We know, however, that we can really eliminate thyroid tissue with approximately 50 Gy, and therefore an adequate dosimetry for the ablation of thyroid remnants should be done (2); sometimes you will end with as little as 20 mCi, sometimes you need 100 mCi. On the other hand, the real ablation of thyroid remnants has been so valuable in our series of more than 1000 patients (Fig. 1) that we and others (3) are convinced that this therapeutic approach should stay. Today thyroid cancer has become one of a few malignancies that can really be cured by a combination of surgery, radionuclide therapy, hormone therapy, etc., in the majority of afflicted patients. If now surgeons, nuclear physicians, and oncologists start again to discuss the advantages and possible disadvantages of surgical and nuclear medicine approaches to thyroid carcinoma, I am sure that many advantages gained over the past decades will be lost (4). As soon as TSH-receptor assays (5) are as routine as estrogen-receptor studies in breast cancer, one might start to discuss the subject again, but until then let us just stay with the concept that thyroid remnants after surgery for thyroid carcinoma should be really eliminated with I-131 under the conditions mentioned above.

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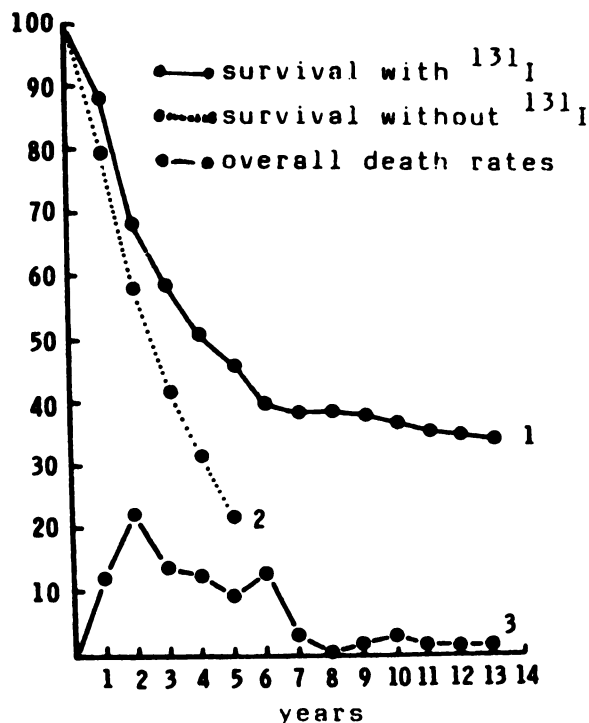


FIG. 1. Thyroid cancer under I-131 therapy and without (n = 752)

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4. SNYDER J, GORMAN C, SCANLON P: Thyroid remnant ablation: Questionable pursuit of an ill-defined goal. *J Nucl Med* 24:659-665, 1983
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Reply

Unfortunately, the above letter is yet another testimonial to what has plagued the evaluation of different approaches to the treatment of thyroid-cancer patients. Were Dr. Riccabona's patients randomized as to treatment? Were variables such as age, sex, histological type, histological grade, extent of disease, extent of surgery, and use of thyroid suppression therapy taken into account? What method was used in the detection of postoperative functioning tissue? Was ablation aimed at presumably normal thyroid tissue, or known residual thyroid cancer in the thyroid bed, or extrathyroidal functioning metastases? Were these variables considered in the survival curve presented?

Reports continue to be published supporting a less aggressive approach to thyroid cancer, implying that less-than-total thyroidectomy followed by thyroid suppression therapy may be adequate (1,2).

Reports also continue to appear raising questions as to the appropriate place for radioiodine in the therapeutic approach to these patients. Investigators at the University of Texas M.D. Anderson Hospital and Tumor Institute recently reported (3) that ablative iodine reduced the frequency of recurrence but that survival was not altered. When various variables were analyzed, it was noted that recurrence rates were not different in patients with pure papillary carcinoma or in those patients who had less-than-total thyroidectomy. As discussed in our paper (4), numerous studies support the use of radioiodine in the treatment of metastatic disease, but there is simply no solid evidence that supports the routine use of radioiodine for remnant ablation. As pointed out by Dr. Sisson (5), until a national cooperative study carefully evaluates ablation as a step in the therapy of well-differentiated thyroid cancer, physicians must form conclusions as to whether to apply it in any one patient, from a knowledge base that is incomplete.

Work with the thyrotropin receptor on neoplastic tissue is an active area of investigation (6), but its clinical relevance has yet to be demonstrated. It may prove to be another variable worth considering in our therapeutic approach to these patients.