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Not So Fast on the Thyroidectomy—Response to Eloy, et al

We at MD Anderson Cancer Center are concerned by the suggestions made by Eloy et al¹ in the August 2009 issue of the *American Journal of Neuroradiology* regarding fluorodeoxyglucose (FDG) activity in the thyroid gland in patients undergoing positron-emission tomography (PET/CT) for nonthyroid malignancy. It is already well known that incidental identification of papillary thyroid cancer is common, as is the fact that the magnitude of uptake as measured by the standard uptake value cannot readily differentiate benign and malignant etiologies. In these matters, the article of Eloy et al breaks no new ground.

However, the recommendation that all such patients even undergo hemithyroidectomy causes us concern for a number of reasons. First, although we agree that there is always the potential for an occult thyroid malignancy to be high-grade, most are quite indolent. Second, it seems that the recommendation for surgery, even if findings of sonography-guided fine needle aspiration (USG-FNA) are negative, suggests an unacceptable risk of sampling error and false-negative biopsies in direct contradiction of established consensus guidelines for the management of thyroid nodules.^{2,3} Finally, before any consideration of surgery, one must balance the risks and benefits of that surgery in light of the patient's other potentially more life-threatening malignancy that brought them to be imaged by PET/CT in the first place.

In addition to the usual complications of any surgery, hemithyroidectomy carries its own risk of vocal cord paralysis; completion of thyroidectomy entails a second surgery, which may result in hypoparathyroidism and the need for lifetime thyroid hormone replacement.

We believe that an USG-FNA is a very reasonable approach to such lesions, with surgery being performed only in the event that malignancy is either confirmed or suspected cytologically,⁴ and that such surgery makes oncologic sense based on a patient's overall circumstance. Measurement of serum thyroid stimulating hormone in such patients is appropriate as a screening procedure for an autonomously hyperfunctioning adenoma. To recommend even hemithyroidectomy for any cancer patients with an incidental FDG-avid thyroid lesion, while ignoring a negative USG-FNA, seems unwarranted and potentially harmful, particularly if \sim 72% of the resected specimens will be benign.

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