The trend seems to reflect the increase in the use of diagnostic imaging studies for non thyroid indications.

Vast Majority of Thyroid Nodule Biopsies Are Benign, Survey Finds

BY SARAH PRESSMAN LOVINGER

Chicago — Although only 4%-8% of adults have palpable thyroid nodules, as many as 10%-50% of adults will have nodules whose presence is confirmed by ultrasound, Dr. Roberta M. diFlorio of Dartmouth Medical Center in Hitchcock, N.H., reported at the annual meeting of the Radiological Society of North America.

Nodules are also found incidentally on CT and MRI scans in 4%-16% of patients, according to Dr. diFlorio, assistant professor of radiology at Dartmouth. Autopsy studies have found even higher rates of thyroid nodules—30%-60%, she added.

To better understand radiology practice patterns for thyroid nodule management, Dr. diFlorio sent surveys to 106 Society of Radiologists in Ultrasound fellows in 2005. She received 50 responses (a 47% response rate) from 42 institutions.

Of the 50 respondents that especially interested Dr. diFlorio was the frequency with which radiology departments performed fine-needle aspiration (FNA) procedures to rule out malignant nodules. “This is the most common procedure we do in our department,” she noted.

His review of all 102 patients operated on for thyroid cancer by endocrine surgeons at the Milwaukee medical center during 2001-2006 showed incidental thyroid cancer in 17%. Moreover, the proportion of thyroid cancers detected incidentally on non-thyroid radiologic studies increased over time. None of 19 cancers operated on in 2001 was detected incidentally, compared with 1 of 17 in 2002, 3 of 17 in 2003, 5 of 15 in 2004, 4 of 20 in 2005, and 4 of 14 in the first half of 2006.

 incidental thyroid cancers were found on MRI, CT, ultrasound, chest x-ray, and carotid duplex ultrasound. The imaging studies were conducted for evaluation of cervical neck pain, carotid arterial disease, voice change, pulmonary metastases, and post-nephrectomy follow-up.

Papillary carcinoma was the pathology in 14 of 17 cases; follicular carcinoma was identified in two cases and medullary carcinoma in one. Overall, 10 patients had stage I cancer. Six had stage III and one had stage IV disease, for a combined 41% prevalence of late-stage disease.

Two-thirds of the craniopharyngioma group met diagnostic criteria for either impaired glucose tolerance or type 2 diabetes (previously undiagnosed), compared with none of the controls, Dr. Hamilton reported. Only 20% of the craniopharyngioma children, compared with the controls (137 mg/dL vs. 115.3 mg/dL [7.6 mmol/L vs. 6.4 mmol/L]), as well as significantly elevated insulin levels at 30 minutes (267 vs. 107 

More Thyroid Cancers Are Found Incidentally

BY BRUCE JANCIN

Phoenix — The rate of thyroid cancers identified incidentally during nonthyroid imaging procedures is on the rise, Matthew T. Tallar said at a congress sponsored by the Association for Academic Surgery and the Society of University Surgeons.

These incidental thyroid cancers deserve to be taken very seriously because they often present as late-stage malignancies, added Mr. Tallar, a medical student at the Medical College of Wisconsin, Milwaukee.

“Based on our data, we feel that incidental thyroid cancers are indeed clinically significant and that their diagnostic work-up and treatment should be the same as for palpable thyroid nodules,” he said.

The overall incidence of thyroid cancer climbed 2.4-fold in the United States during 1993-2002. The reasons aren’t fully known, but the trend has occurred in tandem with the greatly increasing use of diagnostic imaging studies throughout all of medicine.

It is believed that much of the overall rise in thyroid cancer is attributable to a jury-rigged in palpable thyroid cancers detected incidentally on cervical imaging studies done for nonthyroid indications, according to Mr. Tallar.

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Mr. Tallar said that the experiences that have been reported from Lenox Hill, New York, reviewed all 225 dedicated thyroid sonographic studies they performed in a 6-month period and found that 16% were done to evaluate thyroid nodules either discovered incidentally on MRI, CT, or ultrasound performed for nonthyroid indications.

Of biopsied nodules in the incidental group, 17% proved to be cancer, an unexpectedly high rate compared with the 3% for nonincidental nodules—that is, nodules that were palpable or whose presence was signaled by laboratory abnormalities or symptoms of thyroid disease (J. Ultra- sound Med. 2005;24:629-34).

And one or more incidental thyroid abnormalities were identified in 165 of 204 consecutive patients undergoing carotid duplex ultrasound for evaluation of carotid arterial disease in the vascular surgery clinic at Madigan Army Medical Center, Fort Lewis, Wash.

Among those patients with a thyroid abnormality on duplex ultrasound who went on to a dedicated thyroid ultrasound exam, 7.6% were eventually determined to have thyroid cancer (Arch. Surg. 2005;140:981-5).

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