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Letter to the Editor

Making a case for routine high resolution ultrasonography (HRUSG) of thyroid in Graves' disease

We read with interest the article entitled "Coexistent Thyroid Nodules in Patients with Graves' disease: What is the Frequency and the Risk of Malignancy?" by Shi et al.[1] Despite a high incidence of thyroid nodule in their study (44%), the authors found that the incidence of malignancy was only 6% and clinically significant malignancy was only 2%. They concluded that patients with an apparent nodule in association with GD had a malignancy rate of 10% where as patients who did not had an apparent nodule had a zero malignancy rate.

We would like to make a few comments based on the findings of this study.

It is difficult to universally classify nodules as clinically apparent and unapparent, because what may be an apparent nodule to one clinician in a thyroid gland may be missed by another, especially when the gland size is large. In this study the mean gland weight was only 76.4 ± 66.3 g, which is low compared to some other studies and this means that clinical detection of thyroid nodules by palpation in this study would have been easier. Still we find that only 48% of the nodules in this study were diagnosed preoperatively, which we think was because routine high resolution ultrasonography (HRUSG) of thyroid was not done. With the availability of high resolution ultrasound machines, nowadays we expect almost all thyroid nodules, even as small as 2–3 mm to be picked up preoperatively by HRUSG. This has been demonstrated by a number of studies and the sensitivity of HRUSG is picking thyroid nodules is much higher than the palpation or thyroid scintigraphy.[2] So should not all patients of Graves' disease be screened with HRUSG for nodules? Do the authors concur on that?

It also must be mentioned that a recent meta-analysis by Staniforth et al. found that the incidence of thyroid cancer in Graves' disease is at least double the currently accepted 2% incidence of the American Thyroid Association,[3] which may be largely due to the increased detection of papillary micro-carcinomas. They also found that the risk of malignancy is increased approximately fivefold in patients of Graves' disease who had nodules.[4]

If we look at the guidelines, the ATA guidelines for hyperthyroidism recommend Doppler flow studies to arrive at a diagnosis of GD by looking at the increased blood flow, but is silent on routine HRUSG to screen for thyroid nodules in a patient of Graves' disease.[5]

The other point we would like to raise is what happens when a malignant thyroid nodule is discovered in the setting of GD? In today's era when most of the endocrine surgeons agree that the appropriate surgical treatment of GD is total thyroidectomy, most of the clinically unapparent malignancies will be taken care of by the same surgical procedure. But as we know, there are proponents of prophylactic central compartment lymph node dissection (CCLND) in cases of DTC. Those who believe in prophylactic CCLND will miss the opportunity to do it if they miss a malignant thyroid nodule and hence for them, they would have left their patient at risk of recurrence in central compartment. So, for such surgeons, who believe in prophylactic CCLND, a HRUSG screening of thyroid gland for detection of any nodule, and cytology if there are any suggestion of malignancy is absolutely warranted and it can lead to detection of malignancy and complete treatment in one step.

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