

THYROID HEMIAGENESIS OR THYROIDITIS?

The case reported by Russotto and Boyar (*J Nucl Med* 12: 186-187, 1971) failed to mention a condition which may result in identical findings on thyroid scan or scintiphoto and which probably occurs more often than thyroid hemiagenesis.

In cases of antecedent localized thyroiditis involving a single lobe, one commonly finds complete absence of uptake of radioiodine on the involved side since a common sequela of thyroiditis is lobe destruction and subsequent lobe atrophy over the years. In such cases, one fails to visualize the affected lobe on thyroid scan before or after ra-

dioiodine and TSH but sees normal suppression by triiodothyronine of the "healthy" lobe and normal responsiveness to TSH as well.

In fact, the data presented showing at 24 hr a radioactive iodine uptake of only 14% after 3 days of 10 units of TSH suggest subnormal responsiveness by the left lobe to TSH which could be indicative of a chronic inflammatory process, i.e. chronic thyroiditis.

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THE AUTHOR'S REPLY

In reply to the comments of Dr. Liff, I wish to list the following points which I think establish the diagnosis of thyroid hemiagenesis in the patient:

1. The patient had no symptomatic suggestion of thyroiditis.
2. Laboratory data failed to suggest thyroiditis.
3. There was no palpable thyroid tissue on the right.
4. The relatively low uptake after TSH can be

explained on the basis of the test being performed only a week after the patient was removed from triiodothyronine which was given for the suppression test.

Furthermore it is felt that the entity of lobar localized thyroiditis, if in fact it occurs, is extremely rare and probably much less common than agenesis.

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A SIMPLIFIED METHOD FOR DETERMINING ACTUAL ORGAN SIZE FROM A GAMMA CAMERA SCINTIPHOTO

We have studied the determination of actual organ size from a Polaroid or other type of scintiphoto obtained from a gamma camera. The following is a description of our method:

Using a parallel-hole collimator, a Polaroid scintiphoto is obtained of two point sources a known distance apart (i.e., 20 cm). The Polaroid print is then overlaid with a piece of transparent film, such as developed photographic or x-ray film, and the centers of the images of the two points are marked in ink on the transparent film. The distance between the two ink points is then divided into ten equal increments (other convenient divisions can of course

be used). Each increment on the film will then correspond to 2 cm actual size. The film is trimmed to a convenient shape and size and becomes a scaled ruler. This can be placed over any Polaroid print of a scan taken with a parallel-hole collimator, and a true measurement read directly from the scale.

Scales could also be constructed for 35- or 70-mm scintiphotos.

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