Reviewer’s report

Title: The role of ultrasound in the diagnosis of the coexistence of primary hyperparathyroidism and non-medullary thyroid carcinoma

Version: 0 Date: 09 Dec 2018

Reviewer: Maria Rosa Pelizzo

Reviewer's report:

It must be noted that in recent years the large diffusion of diagnostic procedures (neck HRUS, FNAB and routine dosage of serum calcemia values) has increased the finding of concurrence of thyroid and parathyroid disorders.

It must be stressed the high frequency of incidental micro-papillary thyroid carcinoma in specimens of surgical series for benign goiter (>10%) and in autopsy report series (up to 30%). For this reason, before surgery for PHPT, concomitant thyroid nodules require FNAB evaluation, and, in case of malignancy, subsequent neck lymph-nodes US staging for planning the extent of surgery.

At the same time, the serum calcemia has to be included among the preoperative first levels biohumoral dosages for thyroid disorders; hypercalcemia and subsequent dosage of PTH (in primis) and VIT D confirm the diagnosis of PHPT. Diagnosis of PHPT is primary biohumoral: while the role of instrumental procedures is to localize the enlarged parathyroid gland and not to diagnose PHPT.

The A.A. present 7 cases of papillary thyroid found in a series of 112 patients operated on for PHPT (6.5%). No information is given about thyroid status evaluation of the remaining 105 patients. No explanation if given about the two cases of PHPT with normal values of PTH and the case of PHPT with parathyroid gland measuring 7.5×7.2 mm only.

The conclusion that US is the first level procedure to localize parathyroid enlargements is correct, but being operator dependant, it requires a skilled operator. In cases when US fails to localize parathyroid gland enlargements MIBI scan become necessary.

Reviewer's report: Are the methods appropriate and well described?

If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?

If not, please specify which controls are required in your comments to the authors.
Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

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