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Opinion

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Appropriate management for patients with cytologically Bethesda indeterminate thyroid nodules

Opinion

Finding nodules in the thyroid gland is very common in clinical practice. The clinical challenge is to identify malignant thyroid nodules which comprise around of the 5% of thyroid nodules.[1] The tools used to discern that thyroid nodules are malignant are mainly ultrasound and cytological analysis of samples of the nodules extracted by fine needle aspiration puncture (FNA). There are several classifications of the results of cytological studies, the most commonly used being the Bethesda system since 2009.[2] The 2017 revised Bethesda System for the management of patients with thyroid nodules included molecular testing as an adjuvant to cytopathologic examination and the reclassification of the noninvasive follicular variant of papillary thyroid carcinoma as noninvasive follicular thyroid neoplasm with papillary-like nuclear features.[3,4] Indeterminate categories include B-III and B-IV of the Bethesda system.

The mentioned classification system implied risk of malignancy and recommendations for clinical management.[3] For the B-III category, that included atypia of undetermined significance or follicular lesion of undetermined significance, the risk of malignancy is ~10-30%, being the recommended management repeat FNA, molecular testing or lobectomy, whereas for the B-IV category, that include follicular neoplasm or suspicious for a follicular neoplasm the risk of malignancy is 25-40%, being the recommended management molecular testing or, lobectomy. As you can see, one of the options for the managements of patients with these cytological categories, is thyroid lobectomy, having in mind that the surgical intervention is a diagnostic procedure. Unfortunately, in some surgical departments, the surgical procedure offer to the patients is only a total or near total thyroidectomy, without options for less aggressive intervention, being a source of morbidity that is not balanced if finally the thyroid nodules results benign.

The explanation for such an attitude stems from the misconception that oral treatment with levothyroxine can completely replace the complex function of the thyroid gland. Therefore, if after total thyroidectomy the histopathological analysis shows that the nodule is benign, it should be considered a failure of the intervention. We should have in mind that dissatisfaction is very common 77,6% in hypothyroid patients treated with different types of thyroid hormone regimens,[5] being especially difficult to manage patients with athyreotic hypothyroidism.[6,7] The argument used by some surgeons to choose total thyroidectomy is that if the nodule is later confirmed to be malignant, it may be necessary to complete thyroidectomy, being a more complex procedure. For this reason the surgeon performing the thyroidectomy should have sufficient skill and experience to ensure the patient's safety. In conclusion, for the management of patients with thyroid nodules with indeterminate cytologic category requiring diagnosed thyroidectomy, they should always undergo lobectomy or another type of partial thyroidectomy.

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