

EDITORIAL

Improve knowledge and management of thyroid cancer: the role of the endocrinologist in a multidisciplinary team

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Thyroid cancer (TC) has been increasing significantly worldwide in recent decades¹ and studies performed in last years have shown that the endocrinologist plays a key role in the management of the patient with thyroid carcinoma but as part of a multidisciplinary team. TC preoperative diagnosis is performed by neck ultrasound, gold standard technique for risk stratification of thyroid nodules and for screening for cytological analyses, which has high accuracy in identifying the most frequent histotype, papillary thyroid carcinoma, while it still has important limitations in identifying follicular and medullary thyroid carcinoma.²⁻⁴ For this reason, the collaboration between clinician and pathologist has a crucial role in the identification of preoperative malignancy in order to minimize unnecessary surgeries, especially in cytological indeterminate categories. Indeed, studies focused on cytological indeterminate thyroid nodules evaluating the risk of malignancy from the clinical, ultrasound, cytological and molecular point of view, thus establishing an overall score able to identify the presence of TC, are still under development.⁵⁻⁷ Moreover, studies to improve knowledge of the genetic basis of sporadic and familial forms of thyroid carcinomas, from the less aggressive differentiated types to the most aggressive ones (poorly differentiated

carcinoma and anaplastic thyroid carcinoma) have been very important. With the help of new biotechnologies, it has been possible to identify, in an extremely accurate way, the molecular profile of thyroid carcinoma and the potential diagnostic and prognostic biomarkers, both tissue and circulating.⁸⁻¹³ This has also allowed the development of target therapies, the tyrosine kinase inhibitors (TKIs), which are now used for patients with tumors refractory to conventional therapies.¹⁴ Current and future molecular studies will aim to identify new biomarkers and, thus, new potential targets for anticancer systemic therapies. In addition, the goal of the new studies is also to investigate mechanisms of resistance to drugs, identifying cell clones that escape the action of current therapies. Moreover, laboratory techniques aimed to significantly define the assay of TC's biomarkers, thyroglobulin and antithyroglobulin antibodies, have also led to a significant improvement in the sensitivity of these markers during follow-up after the first therapies. Thus, it was possible to stratify, in association to radiological techniques, the different risk classes in patients with TC.^{3, 15, 16} Currently, the treatment of low-risk carcinomas is conservative surgery or the active surveillance approach, mainly for papillary microcarcinomas whose progress appears slow and often in-

dolent.^{17, 18} Surgical therapy and radiometabolic therapy are certainly the most important therapeutic tools at diagnosis. For this reason, the close collaboration between endocrinologist, surgeon and nuclear medicine physician represents a fundamental condition to better evaluate the prognosis and the further follow-up of patients.² Indeed, over the years, surgical techniques have become more and more tailored to reduce potential postoperative adverse events. Moreover, even as regards the administration of radiometabolic therapy, both for ablative purposes and for the treatment of metastases, protocols have become increasingly specific and aimed at minimizing the potential discomforts related to the condition of concomitant hypothyroidism. In the category of advanced thyroid carcinomas refractory to conventional therapies, instead, the endocrinologist had to improve the management of new therapies with TKIs and their potential side effects.^{19, 20} Therefore, multidisciplinary groups including other specialists in addition to the endocrinologist (oncologist, cardiologist, nutritionist, and psychologist) have been strengthened. These collaborations aim to better manage side effects by increasing patient compliance to therapy, thus improving the effectiveness of these therapies able to significantly improve the survival of patients with aggressive tumors. In conclusion, the evolving knowledge on the onset, diagnosis and therapies of thyroid carcinoma, from the low-risk type to the most aggressive forms, has shown how fundamental it is for the endocrinologist to work within a multidisciplinary team, in order to best optimize the management of patients affected with TC.

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