

Editorial

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# New developments in management of metastatic thyroid cancer

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Thyroid cancer is increasing in prevalence<sup>[1]</sup>. Despite the use of ultrasonography for detection in an early phase, aggressive variants leading to metastatic disease continue to occur in perhaps 5% of patients<sup>[2]</sup>. This issue of the *Journal of Cancer Metastasis and Treatment* focuses on thyroid cancer. The ten timely review articles provide an excellent overview of selected aspects of metastatic thyroid cancer.

Davidson and Carr<sup>[3]</sup> provide a thorough review of thyroid cancer metabolism and the principal pathways leading to thyroid cancer with superb illustrations of the various metabolic pathways. In addition, this article reviews the various pharmacologic inhibitors of the pathways, thus providing the reader with an efficient source for comprehending the extensive literature in this field.

Autophagy plays an important role in the homeostasis and survival of thyroid cells. Nagayama provides a very thorough review of the role of autophagy in thyroid cancer and defines the need for additional pharmacologic studies that target this pathway in thyroid cancer cells<sup>[4]</sup>.

Anaplastic thyroid cancer (ATC) is still a rapidly deadly tumor without any established therapy. Lee and Cheng<sup>[5]</sup> present elegant studies of transcriptional pathways to explain transcriptional addiction that makes this tumor so difficult to treat effectively. They propose the use of small molecule inhibitors to target the transcriptional regulators in ATC.



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Quartuccio and Rubello<sup>[6]</sup> performed a comprehensive database review and meta-analysis of <sup>18</sup>F-FDG PET/CT for detection of hematogenous spread of metastatic differentiated thyroid cancer and found a detection rate of 87% with specificity of 86%. This confirms the utility of this technique in the follow-up of patients with metastatic DTC.

Corn *et al.*<sup>[7]</sup> review the issue of finding uptake in the thyroid when <sup>18</sup>F-FDG PET/CT is performed for evaluation of other malignancies. They report incidental thyroid uptake on PET/CT at their institution in 3.4% of 4726 scans. Focal uptake was noted in 2.2%, and diffuse uptake was diffuse in 1.2%. They review the literature and provide insightful recommendations for the management of the incidentaloma.

Matrone *et al.*<sup>[8]</sup> provide a thorough review of the scientific rationale and current therapy of metastatic medullary thyroid cancer.

Many patients with metastatic thyroid cancer are elderly and have cardiovascular disease that limits the choice of therapy for the metastases. Izhakov *et al.*<sup>[9]</sup> review the influence of cardiovascular disease in the overall prognosis among thyroid cancer survivors.

Damage to the recurrent laryngeal nerve is a major issue in the surgical treatment of thyroid cancer, especially in regard to second surgeries for removal of local metastases. Priya *et al.*<sup>[10]</sup> provide a timely review of the methods and techniques of intraoperative recurrent laryngeal nerve monitoring for the preservation of the function of this key structure.

## DECLARATIONS

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The author contributed solely to the article.

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The author declared that there are no conflicts of interest.

### Ethical approval and consent to participate

Not applicable.

### Consent for publication

Not applicable.

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