

## عنوان مقاله:

Currently Used and New Molecular Markers for Thyroid Cancer Diagnosis

## محل انتشار:

مجله سرطان خاورمیانه، دوره 13، شماره 2 (سال: 1401)

تعداد صفحات اصل مقاله: 23

## نویسندگان:

Hatem Hejaz - College of Pharmacy and Medical Sciences, Hebron University, Hebron, Palestine

Isra&#039; Abuzaina - College of Pharmacy and Medical Sciences, Hebron University, Hebron, Palestine

Reem Aldeen - College of Pharmacy and Medical Sciences, Hebron University, Hebron, Palestine

Sondos Saad - College of Pharmacy and Medical Sciences, Hebron University, Hebron, Palestine

## خلاصه مقاله:

Thyroid cancer is highly common all around the world. Its prevalence has rapidly increased over the last ۳۰ years in the United States and other developing countries. Fine-needle aspiration biopsy has become the cornerstone of thyroid nodule diagnosis, whose general reliability is outstanding; however, some aspirates have shown undetermined cytological findings that do not provide a definitive malignancy diagnosis. At least ۷۰ molecular and genetic markers in thyroid nodules have been analyzed in an effort to identify molecular markers to differentiate malignant and benign (BN) thyroid nodules. The present review focused on the currently used markers in thyroid cancer diagnosis. A rising number of studies have investigated immunohistochemical markers, such as galectin-۳ (GAL۳), cytokeratin ۱۹ (CK۱۹), hector battifora mesothelial- ۱ (HBME-۱), and thyroid peroxidase, along with DNA alterations, including mainly BRAF (B-Raf proto-oncogene, serine/threonine kinase) and RAS (Ras proto-oncogene, GTPase) point mutations, Telomerase reverse transcriptase mutations, ret protooncogene/ papillary thyroid carcinoma and PAX۸/PPARG rearrangements, and miRNA signatures and circulating tumor cells for thyroid cancer diagnosis. Although certain markers are promising for differential diagnosis, due to limitations of the substantial prevalence of BN thyroid tumors, none of them is specifically definitive to a large extent. Herein, we also discussed the studies that have supported the use of combinations of several markers, like KIT, TC۱, miR-۲۲۲, and miR-۱۴۶b combination, as well as GAL۳, CK۱۹, and HBME-۱ combination, in enhancing the diagnostic accuracy in differentiating malignant and BN tumors.

## کلمات کلیدی:

Thyroid cancer, Thyroid nodule, Molecular marker, Prognostic marker

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1819136>



