ECRONICON OPEN ACCESS

EC ENDOCRINOLOGY AND METABOLIC RESEARCH

Editorial

The Role of microRNA Genes in Thyroid Papillary Carcinoma

Mehmet Celik*

Department of Internal Medicine, Division of Endocrinology and Metabolism, Trakya University Medical Faculty, Edirne, Turkey

***Corresponding Author**: Mehmet Celik, Department of Internal Medicine, Division of Endocrinology and Metabolism, Trakya University Medical Faculty, Edirne, Turkey.

Received: August 25, 2017; **Published:** September 15, 2017

Papillary thyroid carcinomas (PTC) are well-differentiated malignant epithelial tumors from epithelial cells of thyroid follicle. Papillary thyroid carcinoma is the most common type of thyroid cancers, which composes 85 - 90% of all thyroid carcinomas. The quantity of latest cases of thyroid most cancers is 12.2 in line with 100,000 and the median age at diagnosis is 50 years. It is more common in males than females with some ethnic variations. Although PTCs generally show good prognostic. 7th edition of AJCC TNM Classification System of Malignant Tumors (2010) reported size of primary tumor (> 2 cm), distant metastasis, extrathyroidal extension, lymph node metastasis and age at the time of diagnosis above 45 years as the most important criteria of these tumors. In addition, multifocality, incomplete surgery, vascular invasion, some specific variants and male gender have been suggested as potential prognostic factors [1-6].

Mutational analysis identifies molecular markers of malignancy. other than changes within the RETpercent-RAS-BRAF pathway, comparatively little is notion approximately the genetics of papillary thyroid carcinoma [7]. Micro RNAs (miRNAs) are an enough class of brief, noncoding RNAs which can be extensively expressed in mammalian cells and alter the interpretation of protein-coding genes by means of binding to miR-precise sequences within the 3' untranslated areas [8]. The authors conclude that a miRNA can act as an oncomiR or a tumor suppressor relying at the context. The miRNA classifier is a multiplatform test based at the expression level of 10 miRNA genes and mutational evaluation to come across the presence of eight oncogenes. presently, it is broadly traditional that miRNAs have an impact on a enormous spectrum of biological methods in some cancers. Li., *et al*. located that miR-29a is down-regulated in human % tissues and metastasis in percent by way of targeting AKT3 *in vitro* and *in vivo* [9]. Ma., *et al*. discovered that miR-34a is up-regulated in percent tissues and inhibit apoptosis in % thru the PI3K/Akt/horrific pathway. However, it is nevertheless doubtful whether or not circulating miRNA ranges may honestly assist inside the differential diagnosis or can are expecting analysis of percent miR-221 and miR-222 are overexpressed in % 27,31 and had been related to competitive tumors and destructive clinical tendencies [10-15].

In conclusion, in addition research are wished to research whether miRs are independent predictors of aggressive clinicopathologic talents. long-time period comply with-up of the sufferers inside the contemporary take a look at and studies in large cohorts are important to expose the software program of those molecules in terms of clinical workout as biomarkers.

Bibliography

1. Aschebrook-Kilfoy B., *et al*. "Thyroid cancer incidence patterns in the United States by histologic type, 1992-2006". *Thyroid* 21.2 (2011): 125-134.

2. Haugen BR., *et al*. "2015 American Thyroid Association Management Guidelines for Adult Patients with Thyroid Nodules and Differentiated Thyroid Cancer". *Thyroid* 26.1 (2016): 1-133.

3. Can N., *et al*. "Histological perspective on the effects of tumor-associated macrophages in the tumor microenvironment surrounding papillary thyroid carcinoma". *Polish Journal of Pathology* 67.4 (2016): 332-344.

4. Lang BH-H., *et al*. "Staging Systems for Papillary Thyroid Carcinoma: A Review and Comparison". *Annals of Surgery* 245.3 (2007): 366-378.

5. Sezer A., *et al*. "Relationship between lymphovascular invasion and clinicopathological features of papillary thyroid carcinoma". *Bosnian Journal of Basic Medical Sciences* 17.2 (2017): 144-151.

6. Can N., *et al*. "Histopathological Evidence of Lymph Node Metastasis in Papillary Thyroid Carcinoma". *Endocrine Pathology* 26.3 (2015): 218-228.

7. Kimura ET, *et al*. "High prevalence of BRAF mutations in thyroid cancer: genetic evidence for constitutive activation of the RET/PTC-RAS-BRAF signaling pathway in papillary thyroid carcinoma". *Cancer Research* 63.7 (2003): 1454-1457.

8. Bartel DP. "MicroRNAs: genomics, biogenesis, mechanism, and function". *Cell* 116.2 (2004): 281-297.

9. Luu C., *et al*. "TP53 and let-7a micro-RNA regulate K-Ras activity in HCT116 colorectal cancer cells". *PLoS ONE* 8.8 (2013): e70604.

10. Wang P., *et al*. "Micro-RNA-155 is induced by K-Ras oncogenic signal and promotes ROS stress in pancreatic cancer". *Oncotarget* 6.25 (2015): 21148-21158.

11. Qi Z., *et al*. "Increased micro-RNA 17, 21, and 192 gene expressions improve early diagnosis in non-small cell lung cancer". *Medical Oncology* 31.9 (2014): 195.

12. Li R., *et al*. "miR-29a suppresses growth and metastasis in papillary thyroid carcinoma by targeting AKT3". *Tumor Biology* 37.3 (2016): 3987-3996.

13. Ma Y., *et al*. "MiR-34a targets GAS1 to promote cell proliferation and inhibit apoptosis in papillary thyroid carcinoma via PI3 K/Akt/Bad pathway". *Biochemical and Biophysical Research Communications* 441.4 (2013): 958-963.

14. Nikiforova MN., *et al*. "MicroRNA expression profiling of thyroid tumors: biological significance and diagnostic utility". *Journal of Clinical Endocrinology and Metabolism* 93.5 (2008): 1600-1608.

15. Lee JC., *et al*. "MicroRNA-222 and microRNA 146b are tissue and circulating biomarkers of recurrent papillary thyroid cancer". *Cancer* 119.24 (2013): 4358-4365.

Volume 1 Issue 3 September 2017