

Abstract

The aim of this work is to summarize actual literature overview and to collect the up-to-date knowledge on genetic causes of the development of thyroid carcinomas. Thyroid carcinomas represent the most often endocrine malignancy and its incidence is still growing. This work describes all types of thyroid carcinomas derived from different cell types and are distinguished also according to the degree of differentiation. The main genetic changes in the tumor tissues of the medullary, papillary, follicular and anaplastic thyroid carcinoma are described. Thyroid carcinomas occur mostly in sporadic form, rarely as a familial disease. The causes of familial forms of thyroid carcinomas are also summarized and the main mutations in the germ-line DNA are identified.

Key words: carcinoma, genetics, mutation, thyroid