Abstract

The thyroid carcinoma incidence has currently multiplied and the largest increase was recorded for thyroid papillary carcinoma. The aim of this work is to discuss factors increasing the risk of thyroid carcinoma. The only confirmed risk of developing this form of carcinoma is ionizing radiation mostly in connection with nuclear attacks and nuclear power plants disasters. Other risk factors include iodine intake and the influence of nitrates, both of which act as separate risk factors and also as factors increasing the risk potential of ionizing radiation. Thyroid carcinoma occur 3 times more frequently in women, therefore the risk factors specific for females, such as estrogens, assisted reproduction methods, pregnancy and hysterectomy, are also discussed. Hypothyroidism and Hashimoto's thyroiditis have a significant association with thyroid carcinomas while controversial factors are risky elements of lifestyle and nutrition (eg smoking, cruciferous vegetables, high glycemic index and body weigh index). A high incidence of thyroid carcinomas was found in volcanic areas in connection with the effects of heavy metals contained in lava. Another high incidence was recorded in the areas with low average annual temperatures. One of the reasons for the increase in the incidence of thyroid carcinoma is also an improved diagnosis of this disease.