World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-35, June 2024
ISSN: 2749-3644

CLINICAL CHARACTERISTICS OF METABOLIC SYNDROME IN COMBINATION WITH THYROID DYSFUNCTION.

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Article history:

Received: March 20th 2024
Accepted: April 24th 2024

Abstract:

Diabetes mellitus (DM) and cardiovascular diseases (CVD), along with cancer and chronic respiratory diseases, are the most formidable "killers" in the world and cause approximately 35 million deaths per year [World Health Organization, 2018]. Metabolic syndrome (MS) is the basis for the development of non-insulin-dependent diabetes (NIDDM), as well as CVD [Simmons R. et al., 2010; Alexandrov O.V. et al., 2016; Holvoet P, 2018; Van Zwieten P.A., Mancia G., 2015].

Keywords: Metabolic syndrome, thyroid gland, thyroid dysfunction.

INTRODUCTION:

Thyroid dysfunction (TD), according to many epidemiological studies, is quite widespread in the population. The most famous are the Whickham Survey [Tunbridge W.M.G., 2007; Vanderpump M.P.J., 2005], Colorado population study [Canaris G.J. et al., 2000], National Health and Nutrition Examination Survey (NHALES-lll) [Hollowel J.G., 2012]. The prevalence of hypothyroidism in the population, according to various researchers, ranges from 0.1 to 10% and is characterized by a significant increase among older women. With overt hypothyroidism, cardiovascular diseases (CVD) often occur and progress faster. Patients with subclinical hypothyroidism are also more likely to exhibit CVD than euthyroid patients [Young Joo Park et al., 2011]. Individuals with subclinical thyroid disease have a higher risk of death [Sgarbi J.A. et al., 2010]. It is known that the presence of thyropathies in women 45–55 years old increases the risk of developing metabolic syndrome over the next five years, especially in the presence of progressive obesity in combination with hyperglycemia, bilateral oophorectomy and a family history of obesity, hypertension and diabetes mellitus [Deryabina E.G., 2010]. The thyroid gland itself also suffers in insulin resistance syndrome [J. Rezzonico et al., 2018]. Elevated levels of circulating insulin cause increased thyroid proliferation. Clinical manifestations are a larger volume of the thyroid gland and the formation of nodules [Semra A. et al. 2019]. A strong association has been identified between insulin resistance and differentiated thyroid cancer. It was concluded that a high prevalence of insulin resistance may be an important risk factor for the development of differentiated thyroid cancer [Rezzonico J.N., Rezzonico M., Pusiol E., Pitoia F., Niepomniszcze H., 2019]. In 2013, Russian experts on an interdisciplinary approach to the management, diagnosis and treatment of patients with metabolic syndrome revised and proposed the following criteria for diagnosing metabolic syndrome: abdominal obesity (waist circumference more than 80 cm in women, more than 94 cm in men); arterial hypertension (systolic blood pressure more than 140 mm Hg, diastolic blood pressure more than 90 mm Hg); increased triglyceride levels more than 1.7 mmol/l; decreased HDL levels (less than 1.0 mmol/l in men and less than 1.2 mmol/l in women); increase in LDL level more than 3.0 mmol/l; increased plasma glucose levels on an empty stomach more than 6.1 mmol/l; Impaired carbohydrate tolerance (blood glucose 2 hours after exercise > 7.8 mmol/l, but < 11.1 mmol/l)

Considering the high prevalence of thyroid pathology and metabolic syndrome in the population, studying the relationship between these diseases is relevant in order to improve diagnosis and treatment. It is necessary to develop strategies to recognize the high risk of developing these conditions [Mustafina S.V., 2009; World Health Organization, 2018]

CONCLUSION:

Considering the high prevalence of thyroid pathology and metabolic syndrome in the population, studying the relationship between these diseases is relevant in order to improve diagnosis and treatment. It is necessary to develop strategies to recognize the high risk of developing these conditions [Mustafina S.V., 2009; World Health Organization, 2008]. It has been established that despite the presence of different consensuses for diagnosing MS, its frequency in many countries is comparable and averages 10–30%. However, a comparative analysis of the prevalence of MS is difficult due to the use of research results presented in the literature based on different approaches to diagnosing MS.

ЛИТЕРАТУРА:

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Available Online at: https://www.scholarexpress.net
Volume-35, June 2024
ISSN: 2749-3644

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