## **BOOK REVIEW**

## Text book "Rehabilitation in patients with the diseases of internal organs, of muscular and skeletal systems and of connective tissue"

Printing company "Totex-Lux", Chisinau, 2017, 412 pages

The authors: Vasilii Andreev, MD, PhD, Professor Emeritus, Participant in the Second World War as a soldier and first-aid man in the rifle battalion, artillery battery of Leningrad and second Ukrainian fronts;

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The book considers at a contemporary scientific level, the problems of etiology, pathogenesis, classification and the clinical picture with types and stages of development, complications, outcomes and also diagnosis including the differential one – all these in the diseases of internal organs, of the muscular and skeletal systems and of the connective tissue.

The book is 412 pages long and is composed of preface, abstract in English and five chapters, which reveal problems related to diseases of internal organs, of muscular and skeletal system and of connective tissues.

The distinctive feature of this book is that it provides basic information about diseases of internal organs, of muscular and skeletal systems and of connective tissues along with determining the degree of limited potentialities and working capacities with further rehabilitation in many nosological conditions.

The material exposed in the book will help clinicians, general practitioners and other categories of doctors to direct patients to the Medical Council in order to assess the degree of the impairment of potentialities and working capacities.

This is the first book with such a complex content which

treats issues of the impairment of potentialities and working capacities after the acknowledgement of the Government Decree (2013) regarding the new statute of the assessment of patients with health problems mentioned above.

The book is written in an accessible language and is easy for reading. I would like to congratulate the authors with the publishing of such a useful book, which will become indispensable for many physicians from our country.

In fact this is a textbook classified as a brief presentation of diseases of internal organs and other conditions. I recommend translating and publishing it into Romanian and English for further distribution to all medical institutions from the Republic of Moldova and abroad.

The textbook is dedicated to the 70th anniversary of Nicolae Testemitsanu State University of Medicine and Pharmacy of the Republic of Moldova and to the 90th anniversary of the birth of the academician Nicolae Testemitsanu.

**Nicolae Bodrug,** MD, PhD, Professor Chairman of the Department of Occupational Diseases Nicolae Testemitsanu State University of Medicine and Pharmacy Chisinau, the Republic of Moldova

## Monograph "Primary Hypothyroidism (clinical, pathogenic, diagnostic and therapeutic aspects)"

Printing company "Balacron Editions", Chisinau, 2017, 191 pages

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The monograph "Primary Hypothyroidism (clinical, pathogenic, diagnostic and therapeutic aspects)" is devoted to an important problem in clinical endocrinology in the Republic of Moldova and general medicine. The number of people with autoimmune thyroid disease has considerably increased, in adults and children, after the Chernobyl nuclear explosion, which has led to an increase in the number of people with hypothyroidism. Hypothyroidism is one of the most widespread endocrine diseases with a prevalence of about 2% in the general population, subclinical hypothyroidism, which

usually evolves to manifest hypothyroidism, has a prevalence of up to 10%, and high levels of antibodies to thyroperoxidase (indicators of autoimmune process), which is a predictive factor of autoimmune hypothyroidism of up to 11%.

Both current literature review, which refers to hypothyroidism, as well as own data are analysed in the monograph. The monograph contains more than 500 bibliographic sources.

The first chapter of the monograph is dedicated to the incidence, classification of hypothyroidism, and regulation of function of the thyroid gland. Close attention is paid to au-

toimmune thyroiditis, which is one of the commonest causes of primary hypothyroidism and which has an increasing incidence and prevalence in the Republic of Moldova. This chapter presents the latest data on the role of T and B lymphocytes in the development of the disease. Evidence is presented about the pathogenetic mechanisms that cause Hashimoto's thyroiditis: molecular mimicry and expression of HLA system antigens on thyrocytes, activation of thyroid cells apoptosis through a Fas-ligand interaction. Confirmations of genetic susceptibility are presented and the precipitating factors of au-

toimmune thyroiditis, as well as the effect of thyroid hormones, the mechanisms of regulation of thyroid function are described in the monograph.

The chapter "Endocrine and metabolic disorders in hypothyroidism" presents the natural continuation of the first chapter, which describes the metabolic disorders occurring in hypothyroidism. Changes in lipid metabolism are best studied. Decreasing thyroid function not only increases the number of LDL particles, but also promotes LDL oxidation. Abnormalities of lipid metabolism associated with hypothyroidism predispose to the development of atherosclerotic coronary artery disease. Emphasis is placed on the development of fatty liver disease in hypothyroidism, which may be one of the explanations of metabolic disorders. Decreased thyroid function

causes changes in glucidic metabolism. Regional cerebral disruptions of glucose metabolism can cause alteration of superior mental functions. The anabolic effect of thyroid hormones in physiological doses in protein metabolism is well known, but the pathological changes caused by the impairment of this metabolism in hypothyroidism are not sufficiently related in modern literature. The author emphasizes that there are insufficient studies of the mechanisms of protein and glucidic metabolism disorders, although disruptions of these metabolic processes underlie the development of various signs and symptoms of hypothyroidism.

A separate chapter is devoted to the results of the author's own research on changes in the profile and content of free blood amino acids in patients with primary autoimmune hypothyroidism, which have not yet been studied sufficiently. These studies are of particular interest because, according to contemporary data, the main role of thyroid hormones is to ensure the expression of many genes, which determines the significance of free amino acids metabolism research, as indicators of protein metabolism. The author has identified the modifications of both spectrum and content of amino acids

in part, as well as of functional groups – immunogenic, ketogenic, glycogenic, proteinogenic. Most of the data is new.

Chapter 4 summarizes the current knowledge of national and international literature on clinical picture, vegetative disorders in hypothyroidism. The importance of this chapter is that it is taken into account that hypothyroidism, being a polyorganic disorder, determines the polymorphic picture. The above mentioned testifies about the need for special attention from physicians of various specialties towards patients with low thyroid function in order to diagnose them early.

In the 5th chapter dedicated to the neuropsychological and cognitive disorders, the author describes their variability - both decrease of psycho-emotional and mental processes, disorder of mnestic processes, as well as a general intellectual decline, depressive and paranoid manifestations. The attention to these disturbances is determined by the fact that substitution treatment only is not sufficient in treating patients with hypothyroidism. In the chapter are described the methods applied to detect cognitive impairment - P300 cognitive evoked potentials and changes of P300 potential in people with hypothyroidism. Another point of interest is data regarding the pathogenetic mechanisms of correlation between cognitive indices and vegetative changes. Literature data analysis shows that most people with hypothyroidism have psy-

cho-emotional and cognitive disorders, but the interrelation of the thyroid system with superior mental functions is not clear.

In chapter 6 is discussed the treatment of hypothyroidism. The author mentions that substitution treatment in most cases reverses pathological symptoms, but normalization of cognitive and emotional-motivational processes is not always achieved, requiring additional approach of some pathological manifestations in hypothyroidism.

In conclusion, the monograph of Mrs. Vudu Lorina is a premiere for the endocrinology specialty in the Republic of Moldova through the high-relevance approached field. The monograph "Primary hypothyroidism (clinical, pathogenic, diagnostic and therapeutic aspects)" is a fundamental work of major scientific value and practical significance. It is recommended to endocrinologists, residents, students, lecturers and practitioners in other fields.

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