### **REVIEW**

by Prof. Dr. Miss Radeva Prakova-Vasileva, MD - Head of the "First Department of Internal Medicine and General Medicine" at the Medical Faculty of the Thracian University - Stara Zagora

Member of the Scientific Jury for the competition for the academic position "Associate Professor" in the field of higher education 7. "Health and Sports" in the professional field 7.1 "Medicine" and scientific specialty "General Medicine" at the Department of "General Medicine" of MF, MU - Varna, published in the State Gazette, issue 61 of 23.07.2021.

The review is in accordance with the requirements of the Law for Development of the Academic Staff in the Republic of Bulgaria and the Regulations for the terms and conditions for acquiring scientific degrees and holding academic positions in MU-Varna and according to Order №P-109-399 / 20.09.2021 of the Rector of MU-Varna.

For participation in the competition, documents have been submitted by one candidate - Ch. Assistant Professor Dr. Zhenya Ruseva Petrova, MD, PhD.

Dr. Zhenya Ruseva Petrova graduated from the Medical University "Prof. Dr. P. Stoyanov "- Varna in 1999. He started his professional development as a doctor at the Center for Emergency Medical Care - Varna, where he worked from 2000 to 2009. Since 2009 and now, after acquiring a medical specialty in "Physical and Rehabilitation Medicine", he works at the Diagnostic and Consulting Center "St. Marina "Ltd. - Varna. In 2011 he started working as an assistant at the General Medicine Training Sector of the Department of General Medicine and Clinical Laboratory at MU-Varna. Since 2016 he has been a doctoral student in independent training at the same Department of General Medicine. In 2017, after successfully defending a dissertation on "Possibilities of physical factors to influence children with tonsillar hypertrophy and symptoms of night breathing disorders" acquired ONS "Doctor". Since 2018, he has a second clinical specialty in General Medicine. From the same year and currently he is a senior assistant in the Department of General Medicine at MU-Varna.

### Research activity

The scientometric indicators of ch. Assistant Professor Dr. J. Ruseva were evaluated on the basis of the presented materials for scientific activity after the acquisition of Educational and Scientific Degree "Doctor" in 2017. Dr. J. Ruseva participated in the competition with 1 monograph and 15 publications, of which 14 in full text, which are after the acquisition of Educational and Scientific Degree "Doctor" and the occupied academic position "Chief Assistant". Eleven of the publications are in a scientific journal, referenced and indexed in a world-famous database of scientific information - "General Medicine", and 4 - in unreferred journals with scientific review or in edited collective volumes: 1 of the articles - in Scripta Scientifica Medica (summary), 1 - in MedPost, 1 - in MedInfo. One of all presented publications

is in an international edition with scientific review. In one of the publications Dr. J. Ruseva is the first author, in 5 - the second and in 6 - the third and consecutive author.

The scientific participations in international and national forums with posters and reports are 14. In 50% of these participations Dr. J. Ruseva is the first and in 3 - the second author.

- Dr. J. Ruseva presents evidence for the citations prepared by the library of MU Varna based on automated information from foreign databases Web of Knowledge, Scopus and Google Scholar, where a total of 7 citations were found, 2 of which in world-famous database data, 1-in monographs and volumes with scientific review and 4-in unreferred journals with scientific review.
- Dr. J. Ruseva participated in a research project at the Science Fund of MU Varna in 2017 on "Complex oral diagnosis of children and adolescents with diabetes and obesity."

Given the interdisciplinary nature of the specialty "General Medicine", the contributions of the scientific publications of Assistant Professor Dr. J. Ruseva can be combined in the following areas:

Scientific and applied contributions in the field of adenotonsillar hypertrophy in childhood, the symptoms associated with it and the possibilities for treatment with the methods of physical therapy.

Children, who occupy a significant share of the list of general practitioners, show an increasing incidence of adenotosylar hypertrophy in Bulgaria and worldwide. The developed questionnaire makes effective the selection of children with this pathology, suitable for the developed original complex physiotherapy program. The latter includes the use of polarized, polychromatic, incoherent, low-energy light and ultrasound in children with impaired nocturnal breathing, nocturnal enuresis and diurnal behavioral symptoms. The established statistically significant results are the basis for the developed algorithm for behavior, applicable in general medical practice. The need for active participation and coordination of activities between the family doctor and otorhinolaryngologists in children with adenotonsillar hypertrophy, nocturnal breathing disorders, diurnal behavioral symptoms, overweight and obesity has been proven.

Scientific and applied contributions in the field of prevention and treatment of patients with disc disease through the methods of physical therapy.

Disc disease and its associated symptoms are one of the most common reasons for visiting GPs. The injury is localized mainly in the cervical and lumbar spine, which requires active physiotherapy treatment, temporary disability, prevention of significant socio-economic losses for the community.

The studies conducted by Dr. J. Ruseva confirm the data from the available literature on the distribution of patients with disc disease by sex, age and location, noting the increased incidence of pathology in younger men and women. The results show that the treatment of the leading pain syndrome in the clinical picture requires a complex and tailored approach to the stage of the disease in order to achieve maximum physical, mental and behavioral recovery of the patient. Of particular importance is the prevention of the disease, which requires active training of patients by the family doctor and close collaboration with specialists in physiotherapy and rehabilitation, and occupational medicine for the application of modern methods of diagnosis and treatment, and respectively to create ergonomic jobs.

Of particular importance are the contributions of an applied nature, proving a statistically significant reduction in the intensity of pain, assessed with a visual analog scale and requiring a set of physical methods and kinesitherapeutic techniques. This leads to a significant improvement in the indicators for assessing the quality of life in patients with lumbar and cervical disc herniation. The results of these studies confirm the findings of other authors, who believe that conservative treatment is particularly important in the initial behavior in patients with this pathology.

## Scientific and applied contributions in the field of rheumatic diseases.

In four of the presented publications, Dr. J. Ruseva makes a systematic literature review of two of the most common rheumatic diseases in the country - rheumatoid arthritis (RA) and osteoarthritis, which require long-term care by GPs. The main diagnostic and prognostic methods in patients with RA are described. It was found that while the studied antibodies have a diagnostic and prognostic character, the radiographic changes in patients with RA are successfully used to report the progression of the disease. Evaluation of radiographic changes before and after treatment confirms its effect. The described factors related to the unfavorable prognosis of RA determine the need for earlier aggressive treatment with biological disease-modifying drugs.

From the literature review of current scientific publications, Dr. J. Ruseva characterizes osteoarthritis as a disease of the synovial joint with three pathogenetic elements included: loss of cartilage tissue, remodeling of the underlying bone and concomitant inflammation. The identification of the key participants in the aseptic inflammatory process allows for their targeted therapeutic control in the conditions of general medical practice.

# Scientific and applied contributions in the field of general medical practice.

The main characteristic of the clinical specialty "General Medicine" are the diverse in nature activities in general medical practice - diagnostic, therapeutic, prophylactic, training, social, management and others. The subject of the family doctor are newborns, teenagers and the old people. In this regard, Dr. J. Ruseva makes an attempt, based on modern literature, to identify the main clinical problems in childhood related to nutrition and overweight, the causes of hyperreactivity, as well as the presence of the most common congenital anomalies of urinary system in children.

The described constellation of indicators characterizing the diagnosis and treatment of patients with acute cholecystitis in general medical practice is the basis for improved quality of health services in the conditions of pre-hospital care.

The classification of the main causes of primary amenorrhea on the basis of modern literature sources aims to increase the opportunities for influencing the GP and improve its work in the course of family planning.

In the presented independent monograph, published in 2021, Dr. J. Ruseva describes in detail the risk factors for the development of disc disease arising from the modern way of life. Surgical and conservative treatment methods are discussed in detail. The possibilities of modern physical therapy for the treatment of chronic low back pain are systematized. Of great practical significance are the effects of the application of the physical factors (alone or in combination with kinesitherapeutic techniques), which are the basis for achieving a better quality of life for patients with disc disease. The monograph is addressed to a wide range of medical professionals: general practitioners, physiotherapists, rehabilitators, kinesitherapeutics and is a valuable tool of scientific and applied nature.

### Teaching activity

Dr. J. Ruseva is a lecturer with more than 9 years of experience at MU-Varna. There are classes with students majoring in "Medicine" and "Health Management". Leads undergraduate internships as trainee doctors in General Medicine and supervises specialists in the same specialty.

The report on the workload presented by MU-Varna shows above the required for the higher school classroom employment - 182 teaching hours in 2018/2019, 127 hours for 2019/2020 and 174 hours for 2020/2021. Dr. J. Ruseva is 0.5 staff at the Board of the Department of General Medicine of MU-Varna.

### Diagnostic and therapeutic activity

Dr. J. Ruseva is a clinical doctor with over 12 years of experience in a diagnostic consultation center "St. Marina" Ltd. - Varna, where he works as a specialist in "Physical and Rehabilitation Medicine". He has an additional qualification in neural therapy and prolotherapy.

#### Conclusion

Dr. J. Ruseva is a well-established lecturer and clinician with an interest in the field of pathologies different in nature and character, common in general medical practice. The presented scientific works highlight the scientific and applied contributions in the field of adenotonsillar hypertrophy in children, rheumatic diseases and disc pathology and their impact on the complex application of various physiotherapy and rehabilitation techniques.

To the presented materials I have some recommendations related to the need to publish more original articles in various scientific periodicals.

Dr. J. Ruseva has the necessary qualities and meets the minimum quantitative and qualitative criteria for holding the academic position of "Associate Professor" according to Law for Development of the Academic Staff in the Republic of Bulgaria and the Regulations on the terms and conditions for obtaining scientific degrees and holding academic positions at MU-Varna. The presented scientific production covers the minimum scientometric requirements: indicator A - 50 points, indicator B-100 points, indicator G-205.71 and indicator D-60 points.

Based on the afore mentioned and the review documentation, I vote positively for the election of Dr. Zhenya Ruseva Petrova, MD for the academic position of "Associate Professor", in the scientific specialty "General Medicine" at the Medical Faculty of the Medical University - Varna.

October 20, 2021.

Stara Zagora

Reviewer:

Prof. Gospodinka Prakova, MD, PhD