

OPINION

From associate professor Dr. Tanya Kirilova Shivacheva, d.m.

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On a dissertation work for the acquisition of the educational and scientific degree "DOCTOR" in

area of Higher Education 7. Health care and sports, Professional direction 7.1

Medicine, Scientific specialty "Internal diseases" on the topic:

**“Determinants of quality of life in patients with nonradiographic axial
spondylarthritis: an analysis based on the main aspects of the disease”**

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with scientific supervisor associate professor Dr. Atanas Angelov Atanasov, d.m.

By ordinance No. R-109-236/01.06.2022. of the Rector of the MU - Varna, I was elected a member of the scientific jury and I am assigned to prepare an opinion on the acquisition procedure of educational and scientific degree "Doctor" with candidate Dr. Svetoslav Pavlov Dimitrov.

Brief biographical data on the professional development and qualifications of PhD student: Dr. Svetoslav Dimitrov was born in 1983 in the city of Varna. He graduated with honors Fifth High School with teaching of foreign languages "Ioan Exarch", city of Varna in 2002. He graduated medicine with excellents at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna in 2008 and was awarded the "Golden Hippocrates" award which allowed him to partake in a specialization of his choice. From 2008 he started working as a resident, and from 2009 he was a fellow in Rheumatology at the Clinic in Rheumatology at "Sveta Marina" UMBAL, Varna. In the period 2011-2013, he was a part-time assistant in Rheumatology at the Department of Cardiology and Rheumatology. In 2013 he was appointed as an assistant in Rheumatology at the Department of Cardiology and Rheumatology. In 2013, he acquired a specialty in Rheumatology.

Relevance of the issue:

The understanding of seronegative spondyloarthropathies has evolved significantly over the past decade. Since 2009, new criteria for axial spondyloarthritis (ASAS), criteria for inflammatory low back pain (ASAS -IBP), criteria for MRI sacroiliitis (ASAS definition of active sacroiliitis) have been introduced. This process formed the concept of non-radiographic axial spondyloarthritis (nr-SpA), which coincided in time with the "biological revolution" and the possibility of a better prognosis for patients. The dissertation work of Dr. Svetoslav Dimitrov is devoted to this current problem.

Structure of the dissertation:

The dissertation work of Dr. Svetoslav Dimitrov is formatted according to the requirements and consists of 158 standard typewritten pages illustrated with 35 figures, 40 tables and 14 annexes. The dissertation has a well-balanced structure that includes an introduction and literature review (31 pages), aim and objectives (2 pages), material and methods (9 pages), results (51 pages), discussion (13 pages) and conclusions and contributions (3 pages). The bibliography contains 202 sources, one of which is Bulgarian. Large shares of the cited sources are from the last 5 years. The abstract is created according to the requirements and consists of 92 standard pages, including 37 tables and 31 figures.

Literature review:

The PhD. candidate demonstrates a deep insight into the topic on which he is working. The design of the literature review was constructed on the main characteristics of the disease. Attention is paid both to the classification criteria (including historically) and the modern criteria

implemented in clinical practice. Data are presented that describe the ASAS recommendations in the assessment of disease activity, similarities and differences with ankylosing spondylitis, gender differences in disease course, change in quality of life, and a contemporary view of treatment options. Special attention was also paid in the literature review to the criteria for inflammatory spinal pain, which are applicable to establishing a clinical diagnosis of axial spondyloarthritis. The literature review is logically followed by the author's proposed unsolved tasks and problems related to the non-radiographic phase of the disease.

Purpose and tasks:

The PhD. candidate formulates the main goal of the dissertation as a continuation of the synthesized information from the presented literature review and the logically presented at the end unsolved tasks. To achieve the goal, 7 tasks have been formulated.

Material and methods:

In his research, Dr. Svetoslav Dimitrov included 202 patients with clinical evidence of low back pain.

In the course of the dissertation, by using the ASAS classification criteria for spondyloarthritis and the criteria for inflammatory spinal pain, after excluding patients with definite radiographic AS, two groups of patients were formed - 160 patients with non-radiographic axial spondyloarthritis and 42 patients with insufficient criteria axial SpA (formed as control group). After applying the criteria for sacroiliitis by MRI of the sacroiliac joints, two subgroups were formed - imaging arm (n=98) and clinical arm (n=62).

The following analyses were made:

1. Demographic characteristics of the participants,
2. Data from laboratory and clinical disease activity,
3. Level of quality of life (the ASQol questionnaire was used),
4. Degree of spinal injury,
5. Spread of the extraaxial manifestations of the disease,
6. Changes from MRI.

Appropriate modern statistical methods, tabular and graphical method of presenting the results were used.

Results:

The results of Dr. Svetoslav Dimitrov's scientific research are presented in detail in 51 pages and are well illustrated. They fully meet the tasks set. As the most significant results of the conducted scientific research, I accept:

1. A relationship between clinical and laboratory activity and the degree of functional disorder of the spine in patients with non-radiographic axial spondyloarthritis has been proven.
2. A positive relationship was established between SPARCC score and composite index scores in nr-ax SpA.
3. A worse quality of life was revealed in patients with nr-ax SpA compared to the control group.

Conclusions:

The conclusions fully meet the set goal and tasks. They are well formulated and logically follow the data from the obtained results.

Contributions:

Dr. Svetoslav Dimitrov in his scientific work presents 10 contributions - 5 each of original and confirmatory nature. Of these, I consider the following to be the most significant:

1. For the first time in Bulgaria there is a review and analysis of patients with nr-ax SpA- demographical characteristics, laboratory and clinical diseases activity, functionality, motor deficit, quality of life and are compared with a control group.
2. An algorithm is proposed to assist daily clinical practice to optimize the possibilities of early diagnosis of SpA with the aim of timely and adequate therapeutic care.

Publications and scientific announcements related to the dissertation work:

Dr. Svetoslav Dimitrov presents 4 articles and 3 presentations related to the topic of the dissertation work. The relevance of the subject as well as the connection with the possibilities formulated by the PhD. applicant for future developments and additions to the scientific work, I believe that there is potential for more future publications and scientific communications on this topic.

Recommendations:

Prospective follow-up of patients from the imaging arm (MRI) for progression to radiographic SpA and determination of predictors of progression is appropriate.

Conclusion:

The dissertation work of Dr. Svetoslav Dimitrov is dedicated to a relevant problem in every respect in the field of Internal Medicine and Rheumatology. The analyzed results significantly complement the data known until now in the spectrum of spondyloarthritis and in particular in its early phase. The proposed algorithm for the selection of patients with signs of spondyloarthritis is based on the author's deep insight into the subject and would have a positive impact on the pursuit of early diagnosis in daily clinical practice. I believe that the dissertation work of Dr. Svetoslav Pavlov Dimirtov meets the requirements for awarding the educational and scientific degree "Doctor". This gives me reason to confidently propose to the members of the respected Scientific Jury to vote positively for the awarding of the educational and scientific title "Doctor" to Dr. Svetoslav Pavlov Dimitrov.

30.06.2022

Varna, Bulgaria

With respect:.....

/Assoc. Dr. Tanya Kirilova Shivacheva, MD/

