

## STATEMENT

On dissertation work  
for obtaining the educational and scientific degree "Doctor"  
in Orthopedics and Traumatology

author: Dr. Petko Ganev, free doctoral student, MU Plovdiv  
topic: "Therapeutic possibilities of cryoablation in low back pain"  
by Prof. Dr. Boris Sakakushev, MD, Department of General Surgery, Medical  
University of Plovdiv.

The dissertation is dedicated to a topical issue. The dissertation presented to me for an opinion is written on 138 standard pages plus appendices and a bibliography written on 18 pages. The work is illustrated with 72 figures and contains 19 tables. Low back pain is a condition that affects people of creative and retirement age, has great social significance, not only because of the loss of ability to work, but also because of the deteriorating quality of life. The approach to this problem is the subject of study worldwide, considering the therapeutic and diagnostic possibilities of various methods of treatment, be it conservative and invasive.

The literature review covers a sufficient part of the volume of the dissertation, is well structured and reflects a brief retrospective on the topic. Historical data provide an interesting look at the development of cryotherapy throughout human history.

The goal is clearly defined and the tasks for its achievement are adequate formulated. Sufficient clinical material was used to solve them: 218 patients with lumbar pain due to various causes. The procedure was performed by various techniques and methods. The factor determining the effectiveness of the method is not only the change in pain but also the change in quality of life. The series are sufficient to perform a precise statistical analysis and to draw conclusions about the studied method. The description of the operative technique is exhaustive, the author pays attention to the description of his preferred technique, but also of the alternatives.

The methods of conducting the study are specifically described. The clinical results are presented objectively using the indices established in the world practice. The

Visual Analog Scale (VAS) was used to assess the effect of pain, and the Oswestry Disability Index and the SF-36 system were used to assess the change in quality of life.

The obtained results are correctly described and accompanied by well-structured tables and figures. An in-depth statistical processing was performed and the statistical methods used were correctly selected. The results of the study are thoroughly analyzed and compared with those of other authors. A comparison is made between the data from our own research and the similar results found in the literature.

The conclusions made concern the theoretical and practical aspects of the problem, correspond to the set goals and objectives and correspond to the results of the study.

In the presented scientific work I can point out the following contributions:

- the number of cases covered is sufficient to draw statistically reliable conclusions;
- Cryoablation of the medial branch of Ramus dorsalis was introduced for the first time in Bulgaria.
- the different techniques by which the method is performed are set out in detail and one recommended by the author is presented
- the change in the quality of life of patients with low back pain who underwent the procedure is considered.
- the pathoanatomical aspects of the condition are considered and a comparison with other methods of treatment is performed.

From a practical point of view, the dissertation offers a valuable for every doctor a good alternative in the treatment of low back pain.

Initial criticisms have led to an adequate correction of the present work by the author.

The bibliography cites 185 titles, 6 of which are in Cyrillic.

In connection with the dissertation, 5 articles have been published, in which he is the first author, one of which is in Latin. The presented abstract of 41 pages corresponds to the layout and content of the requirements.

Conclusion. The dissertation of Dr. Petko Ganev considers a important topic, is structured correctly and proportionally, includes a sufficient contingent, objectively and correctly presents the results and ends with useful for modern traumatology theoretical and practical conclusions. I recommend to the respected members of the scientific jury to award the doctoral student the educational and scientific degree "Doctor".



Prof. Dr. Boris Sakakushev , MD