

## STANDTPOINT

**Made by Prof. Plamen Stoyanov Bozhinov, MD, PhD, DSc**

**Medical University – Pleven, MHAT “Heart and Brain” – Pleven**

In concern with the PhD thesis of Dr. Mladen Evtimov Ovcharov, entitled: “Lumbar disc herniation: clinical aspects and co-relational dependencies in operative treatment”, to acquire the educational and scientific degree of “Doctor” in the field of Neurosurgery.

After consecutive Faculty of Medicine protocol N 35/17.12.2020; Department of Neurosurgery and ENT, MU-Varna report N 102-2994/15.12.2020 and MU-Varna Rector’s order N P-109-3/17.01.2021, I have been appointed to be a member of the scientific jury, producing review-opinion of the upper mentioned PhD thesis.

### **Professional development, qualifications of the candidate, short data:**

Dr. Mladen Ovcharov graduates from MU-Pleven in 1990. In 2001 he becomes BC/BE specialist in Neurosurgery. His entire professional career is associated to UMHAT – “Dr.Georgi Stranski”-Pleven and MU-Pleven as clinical doctor, assistant and senior assistant (1995-2014). From 2015 he is an assistant in the Neurology and Neurosurgery department of MU-Pleven. In July 2018, Dr. Ovcharov was enrolled in a doctoral program in the Neurosurgery and ENT department of MU-Varna. Faculty decision (15.12.2020) promotes his right to defend his PhD thesis.

Dr. Ovcharov’s dissertation thesis deals with an important medical problem in concern with the LDH diagnosis and treatment. The number of younger patients with LDH is gradually increasing in the last decades. According to him, unsatisfactory results after conservative treatment formulate the need of neurosurgical consultation. Such a decision should be taken within 4-6 weeks after conservative treatment in spite of the fact that many conservatively treated patients are getting better after long lasting conservative treatment. It is stressed on the fact that patients’ active participation in the healing process (namely obeying doctor’s instructions concerning the everyday regime) is profoundly important to find the “golden standard”, satisfying the patient’s expectations in concern with the mode of treatment. That is why the accent underlined of the PhD thesis is the clinical aspects and co-relational dependencies of the operative treatment.

### **Dissertation structure and volume range:**

As a whole it is standardized, written on 133 pages. Publications in connection to the thesis – 1 page, contributions – 1 page, literature cited – 17 pages, 48 tables and 69 figures. 179 literature titles (only 3 in Bulgarian, 176 in English), 30% of them are published in the last 5 years.

**Literature survey** – it is written on 10 pages (rather compact) and trying to draw certain pitfalls in one page.

**Aim and tasks** are clearly and precisely formulated, all of the 4 tasks are based on classical principles, being a stable basement to figure out the effectiveness of standard open discectomy (SOD) in the operative treatment of LDH. Analysis of conservatively and operatively treated outcomes is ongoing in parallel.

### **Clinical contingent and methods:**

For the period 2012-2017, 614 patients are being prospectively investigated. 25 patients (4.7%) are not included due to technical reasons mainly. Therefore 589 patients are enrolled in the study. For the same period 147 patients were being treated in the Clinic of Neurology. 52 (35.4%) are not included due to the retrospective design of the study. Adequate and modern statistical methods make the results and conclusions objective.

### **Results:**

Investigation results are pretty well visualized with 48 tables and 69 figures, which fact renders better comprehension of the study itself. According to me, the most important results are:

1. Tendency of increasing the number of operatively treated patients. Most of the cases are in active age (19-60 years) – 72%.
2. 85% of them have experienced some additional conservative procedures – physiotherapy, manual therapy, ozone therapy.
3. 50% stayed 4 post-operative days in the hospital; as a whole, 80 % of them were being treated for a period of 5-6 days post-operatively. A low percentage experienced early post-operative complications (Clavien – Dindo scale).
4. Excellent results are fixed in concern with Visual Analogue Scale (VAS (in-out)) criteria and post-operative Mac Naab level of satisfaction criteria.

**Discussion:**

The author critically analyzes the results of his investigation, comparing them to the classical and contemporary literature data.

**Conclusions:**

I classify the importance of the author's conclusions in accordance with the acquired and analyzed scientific results as follows:

1. It has been figured out that the specific (classical) operative method SOD ensures an excellent and long lasting (5 years) outcome, adequate with the patient's expectations.
2. The early functional results (effects) undoubtedly favor the operative treatment.
3. Precise comparative estimation between conservative and operative treatment of LDH would be possible after parallel prospective randomized studies, including the most recent mini-invasive techniques and ignoring the financial interests at the same time.

**Contributions:**

To sum up the four contributions (predominantly clinical), I finally conclude: introduction for outcomes with maximal precision of long lasting effects after operative treatment invites a need of medical data standardization with real post-operative complications to be estimated. All this should ignore the non-medical factors favoring the patients' aspirations.

The applied documentation is complete, relevant to the law and the MU-Varna regulations in concern with acquiring the scientific and educational degree "Doctor".

**Conclusion:**

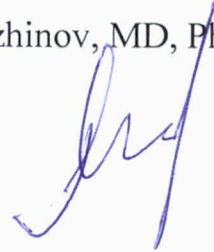
Dr. Mladen Ovcharov's dissertation thesis is original and actual. It is his personal work. Perfect knowledge of literature survey sets a clear aim and tasks in front of him. With contemporary diagnostic and statistical methods he adequately analyzes the results of the study, making logical conclusions. The aim is elucidated after a successful fulfillment of the tasks. Conclusions and contributions bear in themselves a scientific theoretical and practical importance.

Considering the upper mentioned facts, I give a positive vote recommending the doctoral student Dr. Ovcharov to be granted the scientific educational degree

“Doctor” in the field of Neurosurgery. I recommend the scientific jury to stand firmly behind this notion and to vote positively, too.

13.02.2021

Prof. Dr. Plamen Bozhinov, MD, PhD, DSc

A handwritten signature in blue ink, appearing to be 'P. Bozhinov', is written over the printed name of the professor.