

TO

**THE CHAIRPERSON OF THE SCIENTIFIC JURY,
SELECTED AND APPOINTED BY VIRTUE OF ORDER № P -109-411 DATED
26.10.2022 OF THE RECTOR OF THE MEDICAL UNIVERSITY OF VARNA**

RECENSION

From Professor Doctor Kameliya Todorova Tsvetanova, MD, PhD, DMSc.,

Head of the Anesthesiology and Intensive Care Department at the

Medical University of Pleven

By virtue of Order № P -109-411 dated 26.10.2022, I have been selected and appointed as member of scientific jury, following the procedure for holding competition for the acquisition of educational and scientific degree „Doctor“ in the field of higher education 7. Healthcare and sports, vocational direction 7.1. Medicine, scientific specialty „Anesthesiology and intensive care“ (03. 01. 38).

I received, in the proper way, the necessary documents and materials in strict and full conformity with the Rules for the Development of the Academic Staff of the Medical University of Varna.

Applicant in the competition under review: Doctor Atanas Tsankov Zanev, MD.

Topic of her dissertation: „Intraoperative and postoperative anesthesia with TAP-*block* at patients with lower mid-line laparotomy“.

Scientific leader: Associate Professor Doctor Boryana Naydenova, PhD, MD

Short biographical notes:

Doctor Atanas Tsankov Zanev, MD was born on 14.07.1983 in Silistra town.

He completed his secondary education in Silistra town. During 2002, he successfully graduated from Prof. Doctor Paraskev Stoyanov Medical University of Varna.

The professional career of Dr. Zanev, MD began in 2008 at the Center for Emergency Medical Services-Varna City, Dulgopol branch office. Later on, during the period 2009-2011, he started work as intern at the Emergency ward of Saint Anna University Multiprofile Hospital for Active Treatment-Varna City. In 2011, he continued his work as emergency medicine physician in the Emergency ward of Saint Marina University Multiprofile Hospital for Active Treatment-Varna City.

In 2012, he was appointed as anesthesiologist-resuscitator at the Clinic of Anesthesiology and Intensive Care of Saint Marina University General Hospital for Active Treatment-Varna City.

The academic development of Dr. Zanev, MD began in 2014, when he won competition for "assistant professor" at the Department of Anesthesiology, Emergency and Intensive Care Medicine of Prof. Doctor Paraskev Stoyanov Medical University of Varna.

In 2017, he acquired medical specialty in "Anesthesiology and intensive care" and in 2020 he began postgraduate studies in "Anesthesiology and intensive care" at the Medical University - Varna City.

Being university assistant, he teaches the academic discipline/module: „Anesthesiology and intensive care“ not only to the Bulgarian-speaking, but also to the English-speaking university students in the academic major: "Medicine".

He has specialized in Bulgaria, the Czech Republic and Romania.

He has conducted medical training courses in Bulgaria and abroad.

The publishing activity of Dr. Zanev, MD is in series of magazines, including also in such indexed in SCOPUS.

He has participated in series of scientific forums with reports and posters, as well as in Bulgarian and international scientific research projects.

He speaks Bulgarian, English and Russian languages.

He is a member of:

1. Bulgarian Society for Enteral and Parenteral Nutrition (BSFEPN);
2. Bulgarian Society of Anesthesiologists;
3. Bulgarian Association for the Study and Treatment of Pain;
4. European Society of Anesthesiology (ESA);
5. European Society of Regional Anesthesia and Pain;
6. International Association for the Study of Pain.

Topicality of the topic of his dissertation: The pain makes series of unfavorable to organism endocrine, immunological, metabolic and psychological changes.

It, in turn, prolongs the time for the hospitalization of patients, who have gone through surgical intervention.

It turns out, that surgical intervention is the most frequent and predictable source of sharp pain.

The uncured post-operative pain can lead to undesired psychological and physiological effects, as in this way compromises the quality of recuperation. The pain management during the post-operative period is one of the main tasks, which every anesthesiologist-intensivist sets to himself.

Multi-modal analgesia and the loco-regional pain relief techniques play important role in the management of perioperative pain, as the application of the so-called TAP-block (Rafi Transversus Abdominis Plane-block) becomes more and more popular.

The lack of sufficient cases of research in Bulgaria on the topic, makes the present dissertation topical and timely.

Structure of his dissertation: The dissertation of doctor Zanev consists of 157 typewritten pages, out of which: Introduction- 1 page, Literary synopsis- 41 pages, Goal and assignments - 1 page, The object and methods of clinical research -15 pages, Results and discussion- 52 pages, Conclusion- 3,5 pages, Inferences-1 page, Contributions- 1 page, Bibliography- 13 pages (out of which 10 in Cyrillic alphabet and 220 in Latin alphabet), Annexes- 22 pages.

The introduction of the dissertation successfully corresponds with the essence of the selected topic.

It becomes clear from the introduction, that Doctor Zanev, MD is well familiar with the problems associated with intraoperative and post-operative anesthesia and the most advanced anesthesiology-based methods for relieving perioperative pain.

The presented literary survey consists of 41 pages. In it, he has described in detail the anatomical substrates of pain, the types of pain, the most often used pharmacological means of systemic anesthesia and the different modern techniques for anesthesia and analgesia applied in modern anesthesiology and intensive care.

He has paid close and undivided attention to the so-called TAP-block and the diverse techniques for its application.

The comparison of the TAP-block with the other loco-regional pain relief techniques makes good impression.

The goal of the research is correctly formulated, namely to be assessed the effectiveness, applicability and safety of the TAP-block directly in the course of intra- and post-operative anesthesia at patients subjected to surgical interventions with the use of lower mid-line laparotomy.

For the achievement of this goal, Doctor Zanev, MD sets to himself six tasks, which are correctly formulated, as I consider that tasks 5 and 6 could be united in one assignment.

From the chapter "Object of research", it becomes clear, that the research is divided into two studies - prospective and retrospective, completed in the units of Saint Marina University Multiprofile Hospital for Active Treatment-Varna City.

He includes the patients, medicated in the Clinics of Urology and General surgery, who have undergone planned surgeries through lower mid-line laparotomy. The research includes 3 groups of patients:

- 1-st group- control, retrospective one (n= 89), as it encompasses patients treated during the period 2016 - 2020;
- 2-nd group- experimental one, prospective (n=37), including patients who stayed at the above-named medical establishment during the period 2021 - 2022;
- 3-rd group- experimental one, retrospective (n=45), in which he has included patients medicated during the period 2017- 2019.

He has applied the following research methods: documentary method, clinical methods, instrumental methods, laboratory methods, medicinal methods (surgical and anesthesiology-based ones) and statistical methods (SPSS Statistics 25.0 Microsoft Office 2013).

In the chapter entitled: "Results and Discussion", the dissertation defender makes in-depth analysis of the obtained data, which originate from the carried out statistical processing of the results illustrated on Figures 49 and 36.

Doctor Zanev, MD proves in his dissertation paper, that the use of TAP- block allows control being precisely visualized of the units and constant control at the passing of the needle.

He proves, that the TAP-block under review reduced the reported consumption of opioids, does not lead to hemodynamic instability and reduces the intensity of the post-operative static and dynamic pain.

At the same time, the TAP-block reduces the degree of sedation at the earliest post-operative period, reduces the needs for opiates, but does not reduce the cases of PONV and does not influence the dose of the administered and taken Non-steroidal anti-inflammatory drugs (NSAIDs) for post-operative anesthesia.

The section entitled: "Discussion" follows logically unfolded contents.

In it, the dissertation defender thoroughly analyzes the quantitative and qualitative, as well as statistically obtained results by properly classified three groups.

Herein, he draws partial conclusions and inferences, which summarizes on his own in the rubric entitled: "Conclusions". Totally 8 inferences have been drawn, which I accept completely.

I accept, also without any remark, the above-stated scientific-practical grounds (4 in number) and scientific-theoretical inferences (3 in number).

The list of the articles associated with the dissertation under review are two, being published in Varnenski medicinal forum magazine.

Conclusion: On the basis of the presented to me dissertation paper I think, that the dissertation defender has conducted successfully scientific research on one contemporary method for perioperative anesthesia, such as the TAP-block is.

It gives me good reason convincingly to recommend the honorable members of the Scientific jury to make **positive assessment** of the dissertation of doctor Atanas Tsankov Zanev, MD for the acquisition of the educational and scientific degree „Doctor“.

03.11. 2022

Kind regards:

Pleven town

/Prof. Doctor Kamelia Todorova Tsvetanova, MD, PhD, DMSc./