## STATEMENT

from prof. Dr Sergei Dimitrov Iliev MD PhD

Dean of Medical Faculty MU Pleven

Head of Department "Propedeutics of Surgical Diseases" elected member of the Scientific Jury by order № P-109-452/06.11.2023 r. of the Rector of Medical University "Prof. Dr Paraskev Stoyanov – Varna and with decision on the first session of Scientific Jury (Protocol № 1/13.11.2023) of dissertation and autoreferat with topic

"Postcholecystectomy syndrome- an update of an "old" problem.

Diagnostic and advanced therapeutic strategy."

Presented for public defense before scientific jury for the award of scientific degree "Doctor of Science" in specialty "Surgery" professional field 7.1 Medicine, field in higher education 7. Health and Sport

Autor: Assoc. Prof. Dr. Vasil Markov Bozhkov, MD, PhD.

Department: "Surgical diseases ", Faculty "Medicine" of MU – Varna

# Candidate's career profile:

Assoc. Prof. Dr. Vasil Markov Bozhkov, MD, PhD. was born on 13.07.1973 r. He graduates his medical education in MU – Varna in 1998-Diploma № 851/1998 r. From 1999 to 2004 make specialization in Second Department of Surgery – UMHAT "Saint Marina. In 2002 was appointed as resident surgeon in Second Department of Surgery UMHAT "Saint Marina. In 2007 – elected for assistant after contest. In 2011 chief assistant in the Department of surgical diseases – MU – Varna. In 2004 - acquires specialty in surgery. In 2013 defends dissertation "Diagnostic and therapeutic strategy in patients with cholangitis ", MU - Varna for which is awarded Diploma for PhD (№ 039/17.05.2013), in scientific specialty 03.01.37 – "General Surgery ". In 2015 becomes Associate Professor in surgery, in Department of Surgery, of MU-Varna (№82/18.12.2015) From 2016 is Head of Educational Center in Abdominal Surgery in the Department of Surgery, MU – Varna.

Assoc. Prof. Vasil Bozhkov, MD, PhD is a member of: Bulgarian Surgical Society—member of the Management Board, Union of Scientists in Bulgaria – Varna, BDU.

Assoc. Prof. Dr. Vasil Bozhkov, MD, PhD has numerous postgraduate qualifications and courses in leading European centers

Доц. Д-р Васил Божков, д.м. има множество следдипломни квалификации и курсове във водещи Европейски центрове – Bruxelles /2001/, Verona, Italy /2017/, Budapest, Hungary /2017/, Paris, France /2020/, IASGO (Pre-Congress course IOUS), Verona Italy /2023/ и др.

Assoc. Prof. Vasil Bozhkov, MD, PhD writes and speaks – French, English and Russian languages.

## Description of the submitted materials:

## Описание на представените материали:

A dissertation and an abstract have been submitted to me in electronic and printed form, which meet the requirements of LDASRB and the regulations for its application and the rules of Medical University - Varna.

I have also been provided with copies of 10 dissertation-related publications in electronic form.

## Relevance of the topic:

Gallstone disease and its complications are the most common cause of hospitalization in developed countries. It affects between 10-20% of the adult population. The indications for cholecystectomy are also expanding, as evidenced by the significant increase in the number of operations performed for acalculous cholecystitis. The expanded criteria for cholecystectomy during the period of mass introduction of laparoscopic surgery underlies the increase in the number of rare and forgotten complications such as iatrogenic bile duct lesions, residual concrements, scattered gallstones in the abdominal cavity, cholangitis, etc.

Cholecystectomy is considered a successful operation when complete relief of preoperative symptoms is achieved in more than 90% of patients. However, more than 15-20% of cholecystectomized patients report various gastrointestinal complaints after surgical gallbladder removal. With around 700,000 cholecystectomies performed annually in the USA and around 60,000 in the UK, the rate of recorded post-operative complications is

understandably rising. Postcholecystectomy syndrome continues to be a diagnostic and therapeutic challenge. According to different literature sources, the incidence of PCS varies widely reaching up to 50%. Detailed knowledge of the various causes of PCS, timely and thorough diagnosis and the application of patient-tailored treatment in each clinical case are the basis for successful management of the problem and ensuring a good quality of life after surgical treatment of gallstone disease.

Therefore, I believe that the topic is relevant not only for our country, but also internationally.

#### Structure:

The dissertation is presented in 250 standard typewritten pages. The main sections are as follows: Introduction- 3 pp., Literature review – 48 pp., Aim and Tasks – 2 pp., Design of the study – 1p., Material – 12pp., Methods – 15pp., Results – 8pp., Discussion – 83pp., Conclusions – 1p., The bibliography includes 510 authors: 17 in Cyrillic and 493 in latin.

The dissertation is illustrated with a total of 45 figures, 29 images and 12 tables.

Two from the five contributions mentioned by the author are of a scientific and original nature and three - of a confirmatory nature.

# Knowledge of the problem:

The literature review includes 15 main sections with a total of 8 subsections to them, summarizing the current level of knowledge of this pathology and the rationale for conducting this study. The causes of postcholecystectomy syndrome, anatomic abnormalities, iatrogenic lesions, the diagnostic armamentarium, and the range of treatment procedures are described in detail. This, on the one hand, justifies the topicality of the topic and, on the other hand, confirms the impression of the author's detailed insight into the issues.

The clinical material of the dissertation includes a retrospective, analytical study of the data of 1532 patients with GBD and its complications for the period 2011 - 2022, operated in the Second Department of Surgery UMHAT Saint Marina Varna. Laparoscopic cholecystectomy represents the

highest percentage of all surgical interventions performed - 48.8%, followed by cholecystectomy + ChDA - 19%, conventional cholecystectomies-18% and more less cholecystectomy +Kehr - drainage - 14,2%. There were 262 patients with PCS during the study period. Patients with BDI represented 39.5%, with choledocholithiasis-33.7%, with stenosing papillitis-22.1%, with liver abscess-2.6% and with ductus cysticus remnant-2.1% of patients with PCS.

The information on the indicators studied in this dissertation was collected and processed using appropriate modern methods of statistical analysis used in medical practice.

## Evaluation of the thesis, conclusions and contributions:

In the "Results" section Assoc. prof. Dr Bozhkov MD. PhD analyses and illustrates the results of his study with appropriate tables and figures.

Patients were randomized on the basis of their main epidemiological characteristics (sex, age, clinical symptomatology, surgical intervention performed, manifestation of PCS, BDI, treatment performed and outcome).

The results obtained were compared according to the type of PCS clinical symptomatology and treatment applied.

The Discussion section compares the authors' own results with those reported in publications by other authors. The reference to a number of randomized controlled trials and meta-analyses of foreign authors on this specific issue is noteworthy. The analysis of the legal aspects of the medical procedures, manipulations and interventions related to the surgical treatment of GBD makes a very good impression. Iatrogenic bile duct lesions consequent to LC is not always the result of neglect. It is a known complication of the procedure itself. The author emphasizes proper training of the surgeon in LC, detailed written consent information prior to surgery, documentation of the procedure (preferably a videotape, or at least a detailed operative report) properly informing the patient of the risk of accident which are of utmost importance in view of future lawsuits. The final section 'Conclusions' draws six conclusions that follow logically from the overall material and its exposition, the statistical analyses conducted and the interpretation of the data. These conclusions confirm the scientific and practical value of the set goal and the tasks to achieve it.

Contributions of an applied and original nature and of a confirmatory nature - I accept all five contributions described by the author.

# Assessment of publications and personal contribution of Assoc. Prof. Dr Bozhkov MD PhD:

A list and complete copies of ten titles related to the dissertation topic are provided. All ten are full text publications - 9 in proceedings of National Congresses and Conferences with international participation and 1 in the journal "Surgery".

The autoreferat is structured according to the requirements. Its content fully corresponds to the dissertation.

### Critical comments and recommendations:

I have no critics regarding the structuring, illustration and layout of the thesis.

As a recommendation, I would suggest that the Russian surgical sourses be included in the literature.

The reference provided for the science metrics fully meets and exceeds the requirements of LDASRB and the regulations for its application and the rules of Medical University - Varna.

### Conclusion:

The dissertation of Assoc. Prof. Dr Vasil Markov Bozhkov, MD PhD is a thorough and in-depth study on significant clinical material over a ten-year period. It is his personal work. Contains scientific and applied achievements that represent an original contribution to science and meets all the requirements of the LDASRB and the regulations for its application and the rules of Medical University - Varna. The materials and results presented are original in nature and no plagiarism was found.

On the basis of all the foregoing, I give with full conviction my POSITIVE evaluation and propose to the Honorable Scientific Jury to vote positively for the award of the educational and scientific degree "Doctor of Sciences" to Assoc. Prof Dr Vasil Markov Bozhkov MD PhD.

04. December 2023 г.

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Reviewer:...

(Prof. Dr Sergei Dimitrov Iliev, MD. PhD)