

## STATEMENT

from

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Regarding the dissertation work of Dr. Krasen Zdravkov Ivanov on the topic "Malignant ascites and the role of peritoneal tunnel catheters in their treatment" for awarding the educational and scientific degree "Doctor" in the scientific specialty "Gastroenterology" code 03.01.14.

In his capacity as a reviewer, designated by order No.15-03-432-1/15.11.2023 of the Executive Director and Procurator of Acibadem City Clinic UMHAT "Tokuda" and based on the Law on the Development of the Academic Staff, I share the following opinion.

The subject of Dr. Krasen Ivanov's dissertation is an important and topical problem for medical science and gastroenterology related to the so-called "ascites associated with malignant disease". This condition is constantly increasing in frequency and represents a serious social problem. Therefore, Dr. Ivanov's research is relevant and contemporary, as it is dedicated to the application of tunneled peritoneal drainage catheter systems in malignant ascites. Until now, no such study has been carried out in Bulgaria, and from this point of view it is pioneering for our country.

The dissertation is presented in 112 pages, distributed as follows: Contents and used abbreviations - 3 pages, Introduction - 2 pages, Literature review - 28 pages, Aim and tasks - 1 page, Materials and methods - 15 pages, Results - 35 pages, Clinical cases - 4 pages, Discussion of results - 5 pages, Algorithm for selection of suitable patients and their follow-up - 5 pages, Conclusions and recommendations - 2 pages, Literature - 12 pages. The proportion between the individual sections is respected.

The literature review is modern, and the data available in the literature on the classification and mechanism of manifestation of malignant ascites, the epidemiology and pathophysiology of its occurrence, the clinical symptoms of this syndrome and the survival of patients after its development are examined in detail. As a natural consequence, the diagnostic methods for malignant ascites are presented in detail - physical examination, imaging studies, diagnostic paracentesis and subsequent methods for examining the evacuated /no: drained/ ascites fluid. The literature review ends with a description of the treatment methods used in malignant ascites. A good impression is made by the fact that such a complicated subject is presented in an

elegant and comprehensible way, in clear and precise medical language, which shows that the author has a deep knowledge of the subject.

The goal and the set seven tasks are precisely formulated, with a natural sequence between the goal and the tasks on the one hand, and on the other hand, the tasks are presented in a way to develop a corresponding algorithm.

The material and methods used are described in detail. At the beginning, anamnestic and physical examinations are carried out. Then their performance status is determined and a questionnaire is filled out about their quality of life. The procedure for introducing the peritoneal tunnel catheter is described in detail. Modern methods of statistical processing of the material were used.

The studied contingent includes 124 patients /84 women and 40 men/ who passed through the Department of Gastroenterology of "Acibadem City Clinic UMHAT "Tokuda" for the period of 2016 until 2023 in which a peritoneal tunnel catheter was placed.

The results are well structured and illustrated, with the entire dissertation containing 22 figures and 38 tables. They are presented in several sections - according to the assigned tasks. 26 complications were described - 10 severe and 16 mild.

The two clinical cases presented fit the results very well and illustrate them in full.

The discussion shows that the author knows the problem in detail, as well as that he has deep clinical thinking, excellent professional training and instrumental skills.

The discussion of the results ends with a developed algorithm for the selection of patients suitable for the procedure and their follow-up, which I regard as a significant contribution of the dissertation.

The thirteen conclusions drawn are correct, as a logical consequence of the obtained results and fully accurately and summarily reflect the obtained data. Perhaps it was possible to specify and summarize them in a smaller number, corresponding to the number of tasks, but this does not reduce their value.

The contributions are seven in number and are of an original and clinically applied nature. I attach particular importance to the third contribution - for the first time in the country, an algorithm for the selection of patients suitable for the procedure and their follow-up is presented.

Publications in connection with the dissertation work and participation in scientific forums are 8 - completely sufficient according to the current requirements.

136 sources are cited in the bibliography - 4 of them are in Cyrillic and 132 are in Latin. Over 2/3 of them are from the last 10 years. All cited authors are directly related to the research problem and are cited correctly, where necessary, according to the purpose and tasks of the dissertation.

**In conclusion, based on the above, I believe that the dissertation work of Dr. Krasen Zdravkov Ivanov on the topic "Malignant ascites and the role of peritheal tunnel catheters in their treatment" fully and unconditionally meets the requirements for awarding the educational and scientific degree "Doctor".**

15.12.2023

Member of the Scientific Jury:

/Prof. Vladimir Andonov, MD./

A handwritten signature in blue ink, appearing to be 'V. Andonov', written over the printed name.