REVIEW

Regarding Dissertation"The place of cholangiopancreatoscopy in the diagnosis and treatment of pancreatobiliary diseases"for awarding the Educational and Scientific Degree 'PhD'

Higher education area: 7. Healthcare and sports, Sector 7.1. Medicine

Scientific specialty: "Gastroenterology"

Author: Dr. Petko Ivanov Karagyozov

Doctoral Degree Education Form: Self-directed

Scientific organization: Scientific Council of Acibadem City Clinic Tokuda General Hospital

Scientific supervisor: Prof. Dr. Simeon Stoynov, Ph.D., DSc

Reviewer: Prof. Rossen Nikolov, PhD, Clinic of Gastroenterology, University Hospital "St. Ivan Rilski", Medical University - Sofia.

The doctoral student Dr. Petko Ivanov Karagyozov provided me with a complete set of hard copies and electronic documents, related to the official defense of the thesis for the acquisition of the Educational and Scientific Degree 'PhD':

- 1. Doctoral Dissertation and abstract;
- 2. Order by Acibadem City Clinic Tokuda General Hospital CEO, determining the membership of the scientific jury;
- 3. Order by Acibadem City Clinic Tokuda General Hospital CEO, defining the membership of the Extended Scientific Collegium for conducting the internal defense:
- 4. Minutes of the internal defense against the Extended Scientific Collegium and the two reviews presented;
 - 5. Doctoral Student CV;
- 6. Application by Dr. Petko Karagyozov for enrollment as a doctoral student in self directed learning and expulsion with the right to official defense;

7. Decision of the Scientific Council of the Acibadem City Clinic Tokuda General Hospital determining the membership of the scientific jury;

The procedure for the defense of the doctoral dissertation of Dr. Petko Karagyozov is fully consistent with the current regulatory framework in the country – Law on the Development of the Academic Personnel in the Republic of Bulgaria, the Regulations for the implementation of the Law on the Development of the Academic Personnel in the Republic of Bulgaria at Acibadem City Clinic Tokuda General Hospital, the Rules for the conditions and procedure for acquiring academic degrees and occupying academic positions in Acibadem City Clinic Tokuda General Hospital.

At the first non-attendance meeting of the Scientific Jury, held on 03/01/2020, I was elected Chairman of the Jury and appointed to write a review.

Dr. Petko Ivanov Karagyozov was born on 08. 08. 1979 in Sevlievo. He is currently Head of the Department of Interventional Gastroenterology, Clinic of Gastroenterology, Acibadem City Clinic Tokuda General Hospital.

He graduated from Exarch Joseph l High School in Lovech.

He completed his medical education at the Medical University of Sofia; Faculty of Medicine in 2004

He worked at the Gastroenterology Clinics at the Military Medical Academy and Tokuda Hospital.

He has a recognized specialty in Gastroenterology at the Medical University of Sofia since 2013.

He holds a Master's degree in Public Health and Health Management from 2016.

Holds certificates of professional qualification "Conventional and Interventional Gastrointestinal Endoscopy I, II, II and III", as well as various certificates for abdominal ultrasound incl. and for Doppler and endoscopic ultrasound.

He has specialized in leading clinics in Japan, Germany, the Netherlands, Italy, the Czech Republic, etc.

The topic of the dissertation is extremely interesting and relevant and represents a retrospective analysis of the experience gained by the author in the field of oral cholangiopancreatoscopy. The used equipment is second generation SpyGlass equipment - SpyGlass Digital System, which is the most up-to-date in this field worldwide.

The dissertation has a volume of 185 standard pages and is structured properly according to accepted criteria and requirements.

The 48-page review is extremely detailed and comprehensive. It contains a historical overview and the latest developments in the field. It concludes with 11 conclusions, which systematize some of the unresolved and discussion issues related to the methodology. Shows high level of awareness and ability to analyze the author. Based on these conclusions, the grounds for the doctoral dissertation have been formulated.

The goal is defined clearly and concisely. The 10 tasks set out are specific and relevant to achieving the goal.

The clinical material and methods are described in detail. The results of 208 procedures performed on 186 patients over a three-year period were examined.

The results are presented in a neat and clear manner. Well illustrated (59 tables and 48 figures) and treated with relevant statistical methods. Some of the most interesting results are supported by demonstrative clinical cases. This gives greater clarity and specificity. Photographs (part of the figures) also contribute to this - they were all made in procedures performed by the doctoral student's team.

The discussion is detailed. The results of the most significant studies in the field published in medical journals are compared. Of particular interest are the algorithms shown in FIG. 47 - "Algorithm of behavior for difficult concretions" and FIG. 48 - "Diagnostic algorithm for undetermined biliary strictures", resulting from the processing and evaluation of the results, as well as the practical experience gained.

Some of the disadvantages of the work were evaluated by the author in the same chapter - retrospective design performed by one team only, lack of standardized protocol on the number of biopsies taken and material processing, lack of a control group, etc. The retrospective design has been criticized by many authors, but on the other hand, much of the clinical and practical research is just that, because of the indispensability of mastering and training the methodology, the varied nature of the individual cases, the urgency, etc. Some of these shortcomings may serve as a basis for future clinical trials of the same or other teams.

Of particular interest would be the therapeutic and economic evaluation of the method, which would help to evaluate how many centers equipped with such equipment are sufficient for the country.

There are 17 conclusions and they are too many. Some of them are not subject and are not supported by the study - conclusion 1. Others are presenting generally accepted findings - conclusion 16. Some could be combined.

The author has defined 7 contributions. They are not separated into original and affirmative, although there is such a distinction in the text. They confirm the importance of the work and the results obtained.

The literature is detailed - 218 Latin and 4 Cyrillic publications reflecting previous national experience with the mother-baby system and ERCP and related procedures.

In connection with the doctoral dissertation, the author presents 5 publications in medical journals - one in Latin in the magazine Endoscopy and 4 in Cyrillic in the journals Medical Magazine and Medinfo. The IMPACT factor of publications is not reflected. 4 abstracts of reports from prestigious scientific forums have been added.

Notwithstanding the small remarks, I believe that the dissertation work is completed and, in its essence, significant and pioneering for the country. The author is a leading specialist in the field of endoscopic manipulations. The dissertation is entirely made by him and meets all the requirements for obtaining the scientific and educational degree "Doctor".

In view of the above, I give my positive opinion to and propose to the other members of the scientific jury to vote positively for the award of Dr. Petko Ivanov Karagiozov for the educational and scientific degree "Doctor".