



Translation from Bulgarian

[Letterhead: MILITARY MEDICAL ACADEMY]

To
the Chairperson of the Scientific Jury
appointed by Order No. 2828/02.11.2021
of the Rector of Trakia University
Ass. Prof. D-r D. Yarkov

SHORT ACADEMIC REVIEW

by Ass. Prof. D-r Ivelin Takorov, M. D.
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Subject: Defence of doctoral thesis for the award of educational and scientific degree "Doctor" on the topic: "Studies of the options for treatment of benign gallbladder diseases by standard and transumbilical laparoscopic cholecystectomy" with author D-r Galin Zhelyazkov Ganchev, resident doctoral candidate at the General and Operative Surgery, Neurosurgery and Urology Department at the Medical Faculty, Trakia University – Stara Zagora.

D-r Galin Ganchev was born in 1979. He graduated his higher medical education at the Trakia University – Stara Zagora in 2007. Immediately after that he joined the team of the Surgical Department at Multi-Profile Hospital for Active Treatment Galabovo, and after that worked consecutively at MHAT Nia Med – Stara Zagora and MHAT-Stara Zagora. The academic career of D-r Galin Ganchev started in 2012 immediately after he joined the Surgical Clinic at the University Hospital in the town of Stara Zagora as an intern. He was enrolled as a resident doctoral candidate on the above-mentioned topic. D-r Ganchev completed a medical specialty in "General surgery" in 2014. The candidate takes active part in research and clinical work, he is the author of more than 10 research papers and has been included in a research project analyzing the impact of VEGF on the risk of developing gastric carcinoma and its progression. Over the past few years D-r Galin Ganchev has organized several specializations abroad in the field of laparoscopic colorectal surgery and intraperitoneal chemotherapy in Belgium, Germany, Italy, France and the Netherlands. He is fluent in English, Russian and French. He is a permanent member of the Bulgarian Surgical Society.

The scientific work presented for review on the topic of "Studies of the options for treatment of benign gallbladder diseases by standard and transumbilical laparoscopic cholecystectomy" has been developed in compliance with the requirements for earning the scientific and educational degree "Doctor", it is illustrated by 25 figures, 22 tables and 4 annexes, and is of a total volume of 121 pages organized as follows:

1. Introduction – 1 page
2. Literature review – 76 pages
3. Objective and tasks – 1 page
4. Materials and methods – 7 pages
5. Results and discussion – 9 pages
6. Summary – 2 pages
7. Conclusions – 2 pages
8. Contributions – 1 page
9. Annexes – 4 pages
10. Bibliography – 14 pages

The major role of minimally invasive techniques and laparoscopic surgery in the treatment of cholelithiasis and cholecystitis bears testament to the relevance and applicability of the doctoral thesis. In this context, the systematic presentation of the indications, options and detailed structuring of the findings for each of the compared methods are of great use for the science and Bulgarian clinical practice.

The literature review presented on 76 printed pages dominates the volume of the doctoral thesis, it is not very clearly structured, but is up-to-date and exceptionally detailed. Point one discusses the historical aspect of the development of the laparoscopic approach in general. Point two of the review outlines the benign gallbladder diseases that are subject to laparoscopic surgery – as the basis for taking the right clinical decisions. Point three dwells on the detailed description of the standard laparoscopic cholecystectomy technique, access, means and operative details. The specifics of the competitive technique – transumbilical laparoscopic cholecystectomy are subject of point four of the literature review. Logically, point five presents a detailed analysis of the criteria for comparison between the two methods – tissue trauma, operative time, postoperative pain, nausea and vomiting, duration of hospital stay, intra and postoperative complications, conversions and cosmetic effect. In general, there are a number of grammatical and punctuation errors and some styling and formatting ones. The used numbering with the same single Arabic digits repeating several times in the same chapter makes it difficult to follow, especially in the absence of a physical copy of the work

The set objective for “Prospective randomized comparison of SILC and SLC as methods for treatment of patients with non-emergency benign pathology of the gallbladder” is fully adequate and the five tasks set for its implementation are accurate, appropriate and corresponding to the topic of the doctoral thesis.

The Chapter “Materials and methods” presents analysis and follow-up for eighteen patients with non-emergency indications of cholecystectomy. They are randomly distributed between the two groups and their surgery had been done by the same team in the period March 2012-March 2015. Forty patients underwent surgery in the standard laparoscopic method and 40 underwent transumbilical laparoscopic surgery. There are clear and straightforward descriptions of the questionnaires and the used laparoscopic equipment, the design of the study, randomization, preoperative patient assessment, intraoperative positioning, the manner in which the two competitive techniques have been implemented, postoperative care and follow-up intervals. The statistical and mathematical methods used in the analysis of the obtained results are clearly indicated.

The Chapter “Results and Discussion” presents on 9 pages the results obtained after the processing of the data, illustrated by 4 figures and 5 tables. Table No. 18 is included twice with different content. The comparability of the two groups has been proved, women predominate and the largest percentage of patients are in the age range 50-70 years. The operative time is statistically significantly higher for the transumbilical method, but the difference in absolute value is less than 6 minutes. With regard to intraoperative difficulties, no intraoperative complications and conversions were registered. The conventional method has shown a tendency of weaker pain at the 48th hour, even though it is statistically insignificant. There is also a difference in terms of nausea, vomiting and recovery of the intestinal passage. The duration of hospital stay is slightly shorter for patients with transumbilical cholecystectomy. No significant postoperative complications were observed. Equivalent results have been reported with regard to the cosmetic effect as well.

The Chapter “Summary” logically gives an overview and highlights some of the more important results – improved cost efficiency of the transumbilical approach, minimal increase of the operative time and pain perception in the early postoperative period. These results prove the equivalence of the methods and validate the use of

transumbilical laparoscopic cholecystectomy in non-complicated forms of cholelithiasis and cholecystitis.

The 8 conclusions are moderate, they correspond to the set tasks and to a large extent manage to summarize the significance of the work. With the exception of contribution No. 3, which sounds much like conclusion No. 7, I hereby accept the other contributions outlined by the doctoral candidate, as the work is truly innovative for the Bulgarian medical practice.

The bibliography used is comprehensive and up-to-date, it includes 12 research papers in the Cyrillic and about 230 in the Latin alphabet, or a total of more than 240 publications. The thesis makes reference to almost all fundamental works relevant to the development of laparoscopic cholecystectomy. The sources are not numbered which looks rather outdated and complicates the search and analysis in this section of the thesis.

In light of the foregoing, regardless of the minor critical notes, and given the prospects, personal and professional qualities of the candidate D-r Galin Ganchev, I state my opinion "in favour of" the defence of the doctoral thesis on the topic: "Studies of the options for treatment of benign gallbladder diseases by standard and transumbilical laparoscopic cholecystectomy" and kindly invite the members of the honorable scientific jury to give their support to the award of the educational and scientific degree "Doctor".

18.11.2021
Sofia



Member of the Scientific Jury: *sgn. ill.*
Ass. Prof. D-r Ivelin Takarov, M. D.