## REVIEW

## by Prof. Toma Pozharliev DSc on the dissertation of

Assoc. Prof. Dr. Plamen Milchev Chernopolsky PhD on the topic "Intraabdominal Abscesses" for the award of a scientific degree

"Doctor of Medical Sciences"

Order P-109-453/6.11.23 of the Rector of MU - Varna

The dissertant presents a scientific work on the topic written on 372 standard type written pages /42 are bibliographic reference/. The bibliography consists of 362 titles, of which 18 in Cyrillic. It is illustrated with 113 tables and 77 figures.

It is organized as follows: introduction, definition, classifications, literature review, aim and objectives, material and method, discussion, algorithm, testing statistical hypotheses, conclusions.

The presentation of the literature review shows that the dissertator is proficient in theory and practice, and presents the development of knowledge and capabilities of surgery on the problem in the past and now. A sufficient number of articles and reviews, including recent ones, have been used. This review may serve to familiarize both specializing and practicing surgeons with the problems of diagnosis and treatment of intra-abdominal abscesses.

Assoc. prof. Chernopolsky aim - "To study, analyze and standardize the diagnosis, preoperative approach and treatment of patients with intra-abdominal abscesses in order to optimize the outcome of treatment, reduce complications and

achieve a better quality of life". In order to achieve this goal, he set himself 5 tasks, which he successfully completed.

The work is based on patients diagnosed and operated on over a period of 10 years - /2011 to 2020 / in the clinic where the dissertant works. During this period 8666 patients were operated. Of these, patients with intra-abdominal abscesses were 555 - 6.5%.

The Second Department of surgery of MU Varna, where the dissertant works, is a modern surgery with a very good reputation in the region and the country and has provided the opportunity to treat patients with different diagnoses from emergency and elective surgery. Thus, this pathology and its incidence are most accurately presented.

In the development of the material, the frequency of the source cause of the abscess is presented:

Liver and gallbladder abscesses - 207 patients, periappendicular abscesses - 142, pancreatic abscesses - 65, colonic diverticulosis - 21, postoperative - 41, gynaecological origin - 13. The youngest patient was 16 years old, the oldest 89. The mean age was approximately 58 /57, 51/ years. Men accounted for 55, 9%, women - 44,1%.

All patients were thoroughly examined. Assoc. prof. Chernopolsky presents in the most detail the methods of examination - clinical, laboratory, microbiological, instrumental: imaging studies - X-ray, ultrasonography, computed tomography, magnetic resonance imaging, endoscopic methods of examination, laparoscopy. On the basis of accumulated experience and assessment of individual methods, he recommends their application. Evaluates their possibilities.

The localization of the abdominal abscess, the cause of its occurrence, its size, the general condition of the patient, the presence or absence of concomitant diseases, the age of the patient and the results of the clinical examination and

imaging studies provide a basis for making a judgment about the type of surgical intervention. Only accumulated experience and compliance can lead to better treatment results.

Assoc. prof. Chernopolsky describes in the most detail the different localizations of abdominal abscesses and depending on the focus and suggests an algorithm of management. The different options are presented, from antibiotic therapy and conservative management, transcutaneous drainage of the abscess under ultrasonography control, laparoscopy with the possibility of aspiration and drainage and laparoscopic eradication of the focus, to laparotomy. The varied pathology causing abdominal abscess alone shows how experienced the surgeon must be to make an accurate diagnosis and to choose the correct judgment to apply the appropriate diagnostic methods and treatment approach. This is also the reason for the dissertation's proposed management algorithm.

Assoc. prof. Chernopolsky presents the different methods of surgical intervention in different localizations and critically argues the more correct way of behavior.

Patients are examined in the most detail. More than 800 concomitant diseases are discovered. The age of the patient plus one or more comorbidities significantly increased the risk. In this severe pathology, the reported 12.8% lethality is acceptable.

Special attention is paid to antibiotic therapy, as preoperative in elective cases of intervention and as ongoing in abscesses, and especially in the spread of infection.

All research results, operations, complications are subjected to detailed statistical analysis, which confirms the reliability of the results.

From the dissertation the author has drawn 8 conclusions with which I fully agree.

The dissertation work based on 8666 surgical interventions studied, in which in 555 cases the reason for surgery was intra-abdominal abscess, gives me the reason to note the following contributions:

- Detailed analysis of 555 cases of intra-abdominal abscess of different source and localization;
- Refinement of diagnostic methods and evaluation of their capabilities in different localizations of the abscess;
- Presentation of the different surgical treatment modalities ranging from transcutaneous drainage under ultrasonography control, laparoscopic treatment, drainage and eradication of the cause, to laparotomy and in these cases the correct choice of surgical approach;
- Establish a management algorithm regarding diagnosis, monitoring and surgical tactics;
- Presentation of possible complications of diagnosis and surgery and ways to minimize them.

Prof. Dr. Plamen Chernopolsky is 43 years old. He has 18 years of surgical experience. He was an assistant professor. Since 2015 he has been awarded a doctoral degree. In 2016 he was elected as "Associate Professor". He is an experienced teacher and a desired speaker. He has two graduate students of whom he is the supervisor. He has chapters in 7 monographs, 40 articles and 29 papers. He presented 10 papers in connection with the present work.

## CONCLUSION

I know Prof. Chernopolsky, I have been his reviewer on other occasions. He is an erudite physician and surgeon with excellent theoretical knowledge. A good diagnostician, operator and teacher.

The present work is written in good Bulgarian language, well structured. The topic is actual, difficult due to the complexity of diagnosis and especially the

choice of surgical tactics. Treatment of such patients requires experience and thorough differential diagnostic thinking. This is exactly what the dissertant has shown in the interpretation of the diagnostic possibilities of the various methods of investigation, and the choice of surgical treatment method. The algorithm he presents is based on the interpretation of the examination techniques and surgical options. The most important goal is achieved - better outcomes with relatively low lethality.

The dissertation has undeniable contributions that I value highly. He submitted 10 publications related to the dissertation.

The dissertation meets the requirements of the law on scientific degrees and titles.

All this gives me a reason to vote positively for the award of the scientific degree "Doctor of Medical Sciences" to Assoc. Prof. Dr. Plamen Chernopolsky.

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