

UNIVERSITATEA DE MEDICINĂ ȘI FARMACIE „IULIU HAȚIEGANU” CLUJ-NAPOCA

ȘCOALA DOCTORALĂ

SUMMARY OF THE ABILITATION THESIS

CONTRIBUTIONS IN THE LAPAROSCOPIC SURGERY OF THE DIGESTIVE TRACT

Lecturer Dr. Vasile-Florin Zaharie



UMF
UNIVERSITATEA DE
MEDICINĂ ȘI FARMACIE
IULIU HAȚIEGANU
CLUJ-NAPOCA

My name is Vasile-Florin-Zaharie, I am a primary surgeon since 2012, doctor of general medicine (2012), member of the No.3 Surgery clinic within the Regional Institute of Gastroenterology and Hepatology “Prof. Dr. Octavian Fodor” in Cluj-Napoca. As of march 2019, I am also a lecturer of general surgery within the University of Medicine and Pharmacy “Iuliu Hațieganu” Cluj-Napoca.

In the current thesis I have structured my contributions in the laparoscopic surgery of the digestive tract, as part of my professional, academic and research activity, disregarding the open approach as a subject of this thesis.

Following the recommendations of the National Council of Certification of Titles Diplomas and University Degrees (CNATDCU) and respecting the national legislation within the field of study, I have structured my abilitaton thesis in three parts.

In the **first part**, I have tried to combine the professional, research and academic activity from 2012 up until now. Thus, after obtaining the title of doctor in medicine based on my doctoral thesis “Improvement strategies in the surgical treatment of colorectal cancer” coordinated by prof. Dr. Liviu Vlad, I performed over 5000 surgical interventions, out of which approximately 55% were through the laparoscopic approach. The complexity case index (ICM) grew over the years, from 2.25 in 2012, and 2.15 in 2013, to 2.29 in 2014, 2.36 in 2015, 3.19 in 2016, 2.82 in 2017, 2.70 in 2018, 3.02 in 2019 and 2.92 in 2020. From all of the cases, around 10% were approached laparoscopically in the context of the upper GI pathology, 60% in the context of hepato-biliary-pancreatic pathology and 75% in the colo-rectal pathology. I have developed and published a number of 18 ISI articles in which i was primary author, with a cumulated impact factor of 26.15. I have participated as a co-author in 24 ISI articles, with a cumulated impact factor of 41.90. Simultaneously, I have developed and published 4 BDI articles as a primary author and have been cited as a co-author in 10 BDI articles. I have participated both as a primary author and a co-author in 11 specialised surgical treaties and monographies. Out of all these books, my contribution is focused on eso-gastric pathology in 3 books, hepato-biliary-pancreatic in 1 book and colo-rectal pathology in 6 books.

According to the indexed databases (ISI Web of Knowledge and Scopus), I have accumulated an hirsch index of 13, having attributed 537 and 648 citations respectively. The analysis offered by Google Scholar reveals an h-index of 16, having attributed 1066 citations and references.

I have obtained training diplomas from courses in foreign countries such as *European Diploma* for advanced laparoscopic surgery (IRCAD – Strasbourg 15-

16.11.2013) and the *European Diploma* for training in the minimally invasive surgery (IRCAD – Strasbourg 17-21.04.2014), *European Diploma* for training in the interventional GI endoscopy (IRCAD – Strasbourg 14.15.12.2015) and the *European diploma* for “Hepatobiliary and pancreatic surgery training” (IRCAD – Strasbourg 17-19.12.2015) respectively.

Within the continuous formation and education process, I have participated in over 10 research projects, both national and international. Moreover, I have organised 5 workshops, 4 of which being focused on the laparoscopic approach. I have been a member of the editorial team of the “Biotechnology, Molecular Biology and Nanomedicine” magazine, and board editor of the “World of Gastrointestinal Surgery”.

Regarding inventions and patents, I have co-authored three patents. I’m also a participant in two national grants, one of the grants as a responsible, and one as a director.

I’m a member of 8 professional associations of which I mention:

- Romanian Society of Nanomedicine (Founder)
- Member of the Romanian Society for Endoscopic Surgery and Other Interventional Techniques (ARCE) since 2008
- Member of EAES since 2011
- Member of International Association of Surgeon and Gastroenterologists (IASGO) since 2004
- Member of Romanian Surgery Society since 2002
- Member of Romanian Coloproctology Society since 2016
- Member of the Romanian Hepato-Biliary-Pancreatic Surgery Society and Liver Transplant since 2017
- Member of the Patient Dedicated Center of Inflammatory Bowel Disease within IRGH “Octavian Fodor” Cluj-Napoca

From my accumulated experience, I have managed to structure three main directions of research in the digestive surgery using minimal approach : eso-gastric pathology, hepato-biliary-pancreatic pathology and colo-rectal pathology. Being part of a collective with a rich experience in the complex management of surgical cases of the digestive tract, I have always opted for the laparoscopic approach in the majority of the cases, “forcing” the minimal invasive approach, if necessary. This way, I find this approach an opportunistic one, in the treatment of the esophageal cancer (thoracoscopic time and laparoscopic time), of the eso-gastric junction

pathologies and select cases from the gastric pathology. In addition, I support the laparoscopic approach in the treatment of the hidatid disease of the liver as well as other benign or malignant liver pathologies with clear indication of surgery, and I always take into consideration the minimally invasive approach. Last, but not least, we have tried the laparoscopic approach in the colo-rectal pathology, underlining the fact that in the current day I use the laparoscopic treatment as first intention in over 75% of the patients in my care.

The second part of the thesis represents my reflection upon the evolution and the development in the future. Starting from the acquired experience up until now, I consider the training of the residents and the young specialists an absolute necessity and an important pillar of development. I will advocate for practical courses in minimally invasive surgery and applicable training programmes during the residency. I will also be involved and will support the creation of dedicated centres in order to train doctors, based on my own experience and being aware of the importance of the best caregiving to the patients within the institution in which I carry my activity.

Another pillar of development and evolution will be represented by applying on a larger scale of the modern techniques and instruments in digestive surgery. Therefore, using devices such as OrVil for eso-gastric or eso-jejunal anastomoses, of indocyanine green (ICG) and of Lonestar Devices will be implemented in as many cases as possible in the current practice.

Last, but not least, the experience that I've acquired so far, has proven to me the value of research in surgery and its impact on the real progress of this medical branch. Therefore, I cannot conceive an appropriate evolution in the minimally invasive surgery without an adequate and thorough research. For this reason, both the classical and laparoscopic approach in the digestive tract can be used as research topics which will have to be enhanced with molecular, genetic or other innovative techniques in order to improve the indication, surgical technique, prognostic values, and postoperative care, as well as managing the oncological and non-oncological factors.

The final part is reserved for the references associated with the content of the first parts.