

MEDICAL UNIVERSITY – PLOVDIV

Department of Orthopedics and Traumatology

P O S I T I O N

From Prof. Vladimir Stavrev, MD, PhD, Head of Department of Orthopedics and Traumatology, Medical Faculty, Medical University – Plovdiv

WITH REFERENCE TO: Thesis of Boris Kyurkchiev, MD, entitled: “Proximal humerus fractures: analysis of the results after fixation with angle stable locking plates” for the acquisition of the educational and scientific degree "Doctor".

Boris Kyurkchiev, MD chose a difficult and current topic for his dissertation – fractures of the proximal humerus. The doctoral worker's long experience in working at a trauma center of national importance has led to the development of this difficult but extremely socially relevant topic. So far in Bulgaria at least I have not come across a dissertation on this issue.

Similar to other fields of medical science, the methods of fixing fractures of the proximal humerus have undergone a significant evolution. Recently, minimally invasive operative techniques related to mini-invasive penetration into the corresponding anatomical area and work under X-ray control or navigation have become increasingly popular. For this reason, a substantial part of the dissertation is devoted to these operative techniques.

Based on his in-depth knowledge of contemporary literature in the field and his extensive practical experience, Kyurkchiev, MD has chosen precisely the purpose and tasks of his work. The presented paper covers 134 pages, of which an extensive well-illustrated literature review (in my opinion very valuable) and standard chapters for this type of dissertation. The report of the Bulgarian contributions in this field makes a very good impression (E. Takov and all). The material is very large and includes both an extensive review of available literature and 93 operated and monitored patients with 94 proximal humerus fractures. The follow-up takes

into account all complications encountered during the course of treatment, as well as the options for exiting the situation. The work is perfectly illustrated with tables and figures, with the images being colored in very good quality. The data were processed with modern statistical methods using current software products. The bibliographic reference is very comprehensive and includes 167 sources, most of which have been published in the last 5 to 7 years.

The purpose and tasks of the dissertation are presented at the very beginning of the work. The aim is short and clear: **To apply the method of osteosynthesis with locking angularly stable plates in the treatment of fractures of the proximal humerus /FPH/ and to make a critical analysis of the results and the complications that have occurred.**

In order to achieve the above mentioned goal, the author sets himself 5 tasks, which are systematically presented and performed in the course of the exhibition.

The material and methods, results and conclusions are very well illustrated with color images, enabling the reader to gain a clear idea of the treatment performed.

The anatomy and surgical approaches of patients with proximal humerus fractures have been examined sequentially and in detail from proximal to distal in the clinical part.

Based on the analysis of the clinical series presented in the dissertation, the author makes 6 contributions that are both purely scientific and practical in view of their actual application in the daily practice of the trauma surgeon. Of these contributions, 4 are fundamental to contemporary Bulgarian traumatology.

Despite the extensive clinical material, the conclusion of the thesis is short and concise, focusing on new guidelines for the treatment of patients with proximal humerus fractures.

In general, the dissertation is properly structured and in line with the purpose of the development. As a consequence of the stated purpose and a thorough analysis of the clinical material are the conclusions reached by the author.

In summarizing all the above, the following major contributions can be made in the dissertation of Kyurkchiev, MD:

1. For the first time in our country the problems of the proximal humeral fractures and their treatment with angularly stable locking plates are deliberately, comprehensively and thoroughly discussed.
2. The clinical and biomechanical aspects of the problem are analyzed in detail, based on a thorough literature review, and the possibilities, advantages and disadvantages of treatment with PHLP are discussed.
3. The indications and contraindications for the application of the method under consideration shall be specified.
4. Based on worldwide approved evaluation systems – CSS and DASH, the following final results are reported: 20,21% excellent, 37,23% good, 26,6% satisfactory and 15,96% bad.
5. The correct statistical analysis shows that, with good anatomical reduction, the positive results of treatment with angularly stable locking plates are prevalent, despite the high frequency of complications and intraoperative errors. In our literature, our study is unparalleled.
6. An algorithm for definitive conservative and operative treatment of different types of FPH was developed and presented, refining the indications for the application of different types of implants.

In conclusion, I believe that the dissertation work of Boris Kyurkchiev, MD, entitled: “Proximal humerus fractures: analysis of the results after fixation with angle stable locking plates” meets the requirements of the Law for the Development of the Academic Staff of the Republic of Bulgaria, as well as of the Rules of the Scientific Council at UMHATEM “N. I. Pirogov”, Sofia and I vote positively for the award of the educational and scientific degree "Doctor" of the doctoral worker.

14.10.2019

Plovdiv

/ Prof. Vladimir Stavrev, MD, DMS/