**STATEMENT OF OPINION**

**by Prof. Raina Robeva, Ph.D**

**regarding the dissertation work of Dr. Iskui Mnatsakan Erkanyan**

**for the acquisition of the educational and scientific degree "Doctor", in the scientific specialty "Nephrology", code 03.01.15.**

**on the topic: "IgA NEPHROPATHY - CLINICAL, IMMUNOLOGICAL AND PATHOMORPHOLOGICAL CRITERIA FOR DIAGNOSIS AND THERAPEUTIC APPROACH"**

Dr. Erkanyan graduated in medicine in 2010 at the Medical University of Plovdiv. After graduation, she started working as a doctor at UMBAL "Kaspela". In 2016, she acquired a specialty in nephrology. In 2018, she was selected as an assistant professor of nephrology at the Second Department of Internal Medicine of the Medical University of Plovdiv. She speaks fluent English.

The presented dissertation contains 113 standard pages and is illustrated with 10 tables, 35 figures, 8 microscopic photographs. The literature review is based on information from 179 sources, in Cyrillic and Latin. Most bibliographic sources are from recent years and provide an opportunity to assess the topicality of the topic and, after a thorough analysis, to formulate the purpose of the development - to study the clinical, immunological and pathomorphological criteria for diagnosis and differential diagnosis of patients with IgA nephropathy and their importance for the therapeutic approach. The topic defined in this way is modern, with theoretical and practical significance. To realize the goal, 8 specific, well-formulated tasks are specified.

The dissertation analyzed data concerning 110 patients with biopsy-proven IgA glomerulonephritis in the period April 2010 - November 2023 in the UMHAT "Kaspela", Plovdiv, aged between 18 and 78 years. Of them, 84 are men and 26 are women. The histological examination of material from a kidney, taken through kidney bopsy, occupies a central place in diagnosis, determination of therapy and prognosis. The pathoanatomical processing and the corresponding histological result were done in the "Department of Clinical Pathology" of the "UMHAT Kaspela", in the Department of "General and Clinical Pathology" of the Sofia Academy of Medical

Sciences, Lora laboratory, Sofia. Five of the biopsies were performed in other hospitals. The histological results were compared with the diagnoses of 1,002 patients over the age of 18 who underwent PBB in the Nephrology Clinic of UMBAL "Kaspela" for the same period. Complex laboratory tests were carried out, necessary to clarify the condition of persons with glomerulonephritis. In 36 patients and 26 control subjects were also examined for interleukin 6.

More than 10 statistical methods were used, using the modern statistical software packages IBM SPSS, version 27 (2020), Minitab version 19 (2020), and MedCalc, version 20.008 (2021).

The results are presented in nine main chapters and are very well illustrated by tables, figures and photographs of histological preparations. The frequency of IgA glomerulonephritis in the studied population, the observed clinical characteristics, accompanying diseases, secondary forms, histological changes, serum concentrations of interleukin 6 are presented. The results of the therapy and the importance of the gluten-free diet are evaluated.

The discussion of the obtained results and their comparison with those from the world medical literature is very comprehensive, thorough and detailed. It once again shows the good knowledge of the problem.

Dr. Erkanyan formulated 8 detailed conclusions, from which it is clear that IgAGN is the most common glomerulopathy in patients up to 60 years old age with male predominance. The data from the light microscopic study did not differ significantly from those in the large world studies, but immunofluorescence showed a low percentage of IgG and C4 deposition in her patients. The study of IL-6 gave very interesting results, as it showed significantly higher serum levels among patients versus healthy controls. Patients with higher levels of IL-6 had more pronounced levels of interstitial infiltrates, mesangial hypercellularity, as well as higher levels of fibrosis compared to patients with lower levels. The work of Dr. Erkanyan shows that the treatment can give very good results in patients with medium and high risk if it is started in a timely manner. In patients treated with Budesonide, the data from the studies carried out so far for a good effect on kidney function are confirmed. None have proven IBD and no positive antigliadin antibodies are detected. Dr. Erkanyan's

studies confirm that IGAGN is the most common form of secondary glomerulonephritis in psoriasis/psoriatic arthritis and that treatment should be tailored to the underlying cause- primary or secondary IgAGN.

The dissertation work of Dr. Erkanyan has serious scientific and practical contributions. An assessment of the histological changes in a large group of patients with IgAGN was made, in which pronounced differences in the immunofluorescence findings with generally accepted data from the literature were found. The place of IgAGN as a secondary glomerular damage in psoriasis has been evaluated and recommendations regarding the therapeutic approach have been made. For the first time in our country, the level of IL6 in patients with IgAGN was investigated and correlations with histological and laboratory changes were established, which are useful for refining therapy, and results from a state-of-the-art Budesonide regimen are presented. A valuable contribution of a scientific-applied nature is the algorithm presented, regarding the possibilities for early diagnosis of patients with IgAGN and the proposed different therapeutic approach for individual patients depending on the features of the pathoanatomical findings and accompanying pathology.

Dr. Erkanyan has 3 publications related to the dissertation work and 1 announcement at a scientific forum.

In conclusion: All these data give me reasons to consider that the dissertation work is up-to-date and valuable, meeting all the requirements of the law on the development of the academic staff, which is why Dr. Iskui Mnatsakan Erkanyan can be awarded the scientific degree "doctor" .



15.11.2024 Prof. Raina Robeva