



Fund “Nauka” Project № 19024 Resume – Competition-Based Session 2019:

“Identifying the cause for high epidemiologic prevalence of Chronic kidney disease in Dalgopol, Varna”

Project leader: Prof. Svetla Vasileva Staykova, MD, PhD, DSc

Petov A., Benkova M., Petrov P., Levkova K., Zhelyazkov K., Koleva R. Medical university “Prof. dr. Paraskev Stoyanov” Varna, University hospital “St. Marina”, Varna

Currently, over 850 million people around the world are affected by chronic kidney disease (CKD), or every 8th individual. CKD is also the 6th most frequent cause of death. Kidney diseases are very often latently ongoing, thus making the uncovering of the “hidden” cases a priority task for every healthcare system.

This project aims to research the prevalence of CKD among the population of Dalgopol, Varna. This region’s population is characterized by high frequency of chronic kidney diseases. Patients from this area are very often hospitalized in the Clinic of Nephrology, University Hospital “St. Marina” with already developed CKD or ESRD (end stage renal disease). By this time, the treatment options are diminished and usually renal replacement therapy is needed. The project aims to make a screening campaign in the region of Dalgopol in search of individuals with latent CKD. The development of the project is supposed to be “on the field” in order to differentiate cohorts of affected population, based on the criteria for CKD, established by KDIGO. The methods for research include: standard anamnesis and physical examination, dip-stick screening for proteinuria and pathologic urine sediment, abdominal sonography. Once the target groups are identified, there will be further analysis of the genetic background and profile, in search for a “pattern” of the disease. This will be accomplished thanks to the collaboration with the Department of Genetics in the University Hospital “St. Marina”. The obtained data could be used for creating a “risk profile” among the rest of the populated areas around the city of Varna, thus helping the better prevalence of CKD in this region.

Key words: Dalgopol, screening campaign, chronic kidney disease

Achieved results:

In 88 people (59.9%) of the 147 screened, ultrasound criteria were found to diagnose chronic kidney disease. Therefore, 58 people (39%) were newly diagnosed with kidney disease during the campaign. The health literacy of the population is essential for the patient’s cooperation in the treatment provided for him, as well as for the prognosis of his disease as a whole. Given that some patients with CKD are diagnosed in the terminal stage, low awareness of the methods of renal replacement therapy makes communication between the nephrologist and the patient extremely difficult. Familiarity with all methods in a hospital makes it difficult for the patient to make a timely and well-informed decision. This in turn leads to a delay in treatment, as well as to the possibility of incorrect choice of renal replacement therapy. The limited information of the patients hides risks for not understanding the main disease

manifestations in the organism, poor health condition, as well as undertaking potentially dangerous self-treatment.

Theoretical contributions:

- ❖ In 88 people (59.9%) of the 147 screened, ultrasound criteria were found for the diagnosis of chronic kidney disease. Therefore, 58 people (39%) were newly diagnosed with kidney disease during the campaign;
- ❖ Based on the questionnaires, it was found that the population's awareness of chronic kidney disease is low;
- ❖ Based on the questionnaires, it was found that the population's awareness of organ donation (including kidney transplantation) is also extremely low.

Practical contributions:

- ❖ Improving the health literacy of the population;
- ❖ Introducing the population to the various methods of replacement therapy of renal function.
- ❖ A guide is to be developed to explain in detail the nature, risks, factors, ways to prevent COPD, as well as treatment methods.