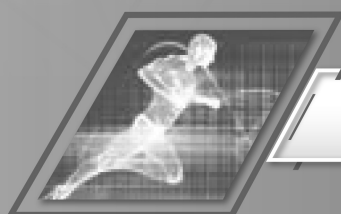




INTERNATIONAL CONGRESS ON NATURAL, HEALTH SCIENCES AND TECHNOLOGY

BOOK OF ABSTRACTS



IBCSS25

*10th International Balkan Conference
in Sport Sciences*

ISCAS25

*9th International Scientific Conference
on Applied Sciences*



ISCFM25

*8th International Scientific Conference
of the Faculty of Medical Sciences*



ICNSM25

*7th International Conference of Natural
Sciences and Mathematics*



ICFTN25

*5th International Conference of Food
Technology and Nutrition*



ICSAF25

*3rd International Conference on
Sustainable Agriculture Farming Systems*



7 – 8 May, 2025
University of Tetova



**International Congress on Natural, Health Sciences
and Technology**

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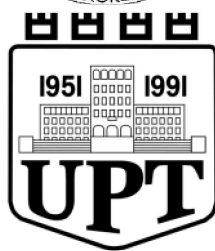


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TREATMENT OF ARTERIAL HYPERTENSION IN PATIENTS WITH CHRONIC RENAL FAILURE

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Abstract

Chronic renal failure (CRF) is an increasingly prevalent condition globally with a high financial cost to the health system. CRF affects 13-15% of the population worldwide and its prevalence is increasing, while almost 45% of the population suffers from arterial hypertension (AHT). The etiology of CRF is multifactorial (inherited and acquired). In 2017, the American College of Cardiology and the American Heart Association published new guidelines for the management of AHT and defined high hypertension as blood pressure $\geq 130/80$ mmHg. A large number of studies have verified that there is a high positive correlation between AHT and AHT. Management of HTA in patients with CRF consists initially of non-pharmacological dietary (dietary and hypoproteinemic) and pharmacological-antihypertensive treatment to achieve the goal of normalizing blood pressure. A large number of studies in recent years have verified that extremely positive effects (including in our work) in the treatment of AHT in patients with CRF using the group of medications so-called Angiotensin-converting-enzyme inhibitors (ACE inhibitors-

(Benazepril, Zofenopril, Perindopril, Enalapril, Ramipril, Quinapril etc.) initially twice a day from 10 mg then 2x20 mg and maximum up to 80 mg but can also be up to 150 mg per day as well as with ACE inhibitor with diuretic Skopril: 20m/12.5 (Hydrochlorothiazide which means ACE inhibitors are often the first choice of drug, especially when diabetes with diabetic nephropathy is also present. In the treatment of AHT in patients with essential CRF, prevention of disease progression is required, pressure values should be maintained within the limits of 130/80 mmHg.

The aim of the study: was to verify the correlation between AHT and CRF as well as the role of AHT in accelerating chronic kidney disease.

Material and methods: in a prospective, cross-sectional study, 80 patients with CRF (35 females with a mean age of 52.60 ± 4.00 years and 45 males with a mean age of 56.00 ± 3.50 years) in the second-third stage according to the glomerular filtration rate GFR (mL/min/1.73 m^2) predetermined according to the MDRD (Modification of Diet in Renal Disease) formula within 12 months from three measurements every four months. In the study we also had a control group of healthy volunteers of 60 individuals (40 males and 20 females) with an identical mean age of 57.50 ± 7.80 years without renal disease or hypertension. All patients were followed for a period of 12 months and every four months: lipid profile, hematogram and examination of nitrogen degradation products and blood pressure monitoring in some patients and 24-hour blood pressure monitoring. The values of all parameters were followed at the beginning of the study and after the application of antihypertensive therapy.

Results: from the average measurements obtained within 12 months (with measurements every four months-a total of three measurements are presented in tabular and graphical form. The values of all parameters were followed at the beginning of the study and after the

application of antihypertensive therapy and a slowing of the progression of the disease was observed, verified according to the glomerular filtration rate. Statistical processing: The results obtained from the examined patients and the control group were statistically processed with the arithmetic mean value, standard deviation - $X \pm SD$, with the Student's "T" test, the Mann-Whitney and Wilcoxon tests. P values <0.05 will be considered statistically significant. The results will be processed with an appropriate statistical program SPSS V26.

Conclusion: in conclusion, we conclude that there is a positive correlation between CRF and AHT. AHT treatment should be started in the acute stages of CRF (with dietary measures-reduction of proteinuria, salt avoidance, hypoproteinemic diet, lifestyle modifications, etc. treatment of AHT is of great importance to preserve the remaining kidney function.

Keywords: arterial hypertension, Chronic Renal Failure.