

9. Summary

The development of civilization and connected with it disorders resulted in the outbreak of chronic kidney disease (PChN). It is estimated, that in the beginning of the 21st century it will involve from 10 to 20 % of population of the developed countries. It is associated with civilization risk factors, such as arterial hypertension, diabetes and the process of society's aging. Leading causes of are diabetes, hypertension, glomerulonephritis, interstitial nephritis, polycystic kidney disease, vasculitis, etc. Arterial hypertension occurs in 80 % patients with chronic kidney disease. It contributes to the progression of kidney disease. Half of the patients with chronic kidney disease die because of heart or blood vessel complications before the development of end-stage kidney disease, that is why treatment of arterial hypertension is so important in CKD patients, according to the latest recommendations of PTNT and KDIGO.

The aim of this dissertation is to analyse clinical data of CKD patients undergoing intermittent hemodialyses, in regard to presence of hypertension, cause of dialysis, dialysis vintage, complete blood count, serum lipids, fasting glucose, volemia, adequacy of dialysis, antihypertensive drugs, weight of patients before and after dialysis, weight gain between dialysis, arterial pressure before and after dialysis, concentration of urea before and after dialysis, concentration of creatinine before and after dialysis, concentration of potassium before and after dialysis, concentration of sodium before and after dialysis, concentration of calcium before and after dialysis, concentration of phosphorus before and after dialysis), and more the percentage of patients who achieve recommended blood pressure.

This is a retrospective study. We analysed medical charts of 100 patients hemodialysed in Dialysis Station of Voivodship Hospital named after Ludwik Rydygier in Suwałki. There were specified some groups which were examined:

- I. PChN + NT – patients with chronic kidney disease who were also diagnosed as having arterial hypertension, 100 people (54 men, 46 women), average age $66,17 \pm 14,01$ years, average weight $74,41 \pm 18,56$ kg, average BMI $26,78 \pm 6,45$ kg/m², including:
 - A. PChN + monoNT – patients with chronic kidney disease and arterial hypertension treated monotherapy, 15 people (8 men, 7 women), average age

70,07 ± 13,01 years, average weight 80,27 ± 20,77 kg, average BMI 29,27 ± 8,87 kg/m²,

- B. PChN + poliNT – patients with chronic kidney disease and arterial hypertension treated polytherapy, 85 people (46 men, 39 women), average age 65,48 ± 14,05 years, average weight 73,37 ± 16,34 kg, average BMI 269,34 ± 5,19 kg/m².

Statistical analysis was performed using parametrical tests for parameters with normal distribution and nonparametrical tests for those with not normal distribution, The approved level of statistical characteristic was $p < 0,05$. The statistical calculations were conducted on the basis of statistical package Statistica 10,0 (StatSoft, Cracow, Poland).

It was demonstrated that before dialysis 33,3 % patients treated with monotherapy had target blood pressure, according to PTNT recommendations, while after dialysis 40 % patients achieved target blood pressure. In case of patients treated with polytherapy 37,6 % patients had target blood pressure, while after dialysis 48,2 % patients achieved target blood pressure, according to Polish Society of Arterial Hypertension (PTNT) and Kidney Disease Improving Global Outcomes. Pharmacological monotherapy in connection with dialysis therapy effectively reduced arterial pressure at 7 % patients (33,3 % before dialysis and 40 % after), while polytherapy and dialysis in almost 11 % patients.

On the basis of obtained results following conclusions were drawn:

1. Arterial pressure in HD patients significantly decreases after dialysis, especially in polytherapy group.
2. The most commonly used hypotensive drugs were diuretics, calcium channel blockers and β -blockers, used both in monotherapy and polytherapy.
3. In the studied group, irrespective of pharmacological therapy, hemodialysis, significantly reduces body weight and reduces overhydration
4. Despite hemodialysis and pharmacological therapy not all of the patients achieved target blood pressure as recommended by PTNT and KDIGO.

