Conclusion. Analysis of clinical data in this study shows the risk of cardiovascular disease development and/or progression in patients with diabetes mellitus thus posing the need for early intervention and proactive treatment to stop development of cardiovascular disease or decelerate its progression in this group of patients.

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CARDIOVASCULAR RISK ASSESSMENT IN PATIENTS WITH DIABETES MELLITUS USING PROSPECTIVE CARDIOVASCULAR (PROCAM) STUDY

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Comprehensive analysis of clinical data with PROCAM score assessment was carried out for 18patients (6 males of mean age - 65,17 years and 12 females of mean age - 62,58 years; with mean diabetes duration of 15,58 years); results show evident risk of cardiovascular disease development in diabetic patients with need for appropriate and proactive treatment.

EFFECT OF DIABETES MELLITUS ON THE CHRONIC KIDNEY DISEASE DEVELOPMENT

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Introduction. Diagnosis of chronic kidney disease (CKD) today remains a difficult task, especially in cases where it is Diabetes mellitus (DM) affect the kidney in stages. At the onset of diabetes, the kidney grows large and glomerular filtration rate (GFR) becomes disturbed. Most recent basic and clinical research has pointed toward sclerosis and kidney failure. The cardiovascular risk is progressively increased with the glomerular filtration rate decreasing [1].

Aim. To estimate the risk CKD progression in patients with DM in order to provide early necessary and timely interventions to improve life expectancy and reduce progression of the disease and morbidity.

Methods. Work was based on the comprehensive analysis of 18 patient case reports. Mean age of the patients was 53 - 74 years old (65 male and 66 female).

Mean duration of diabetes in these patients was 15 years. An assessment of the main risk factor that can lead to diabetes in the patient and the duration of the patient's illness was carried out, taking into account the treatment plan for all patients. We relate the effect of diabetes on kidney disease progression to chronic kidney disease assessing the patient albumin/ creatinine ratio, proteinuria and GFR values. The GFR values was calculated using Cockroft-Gualt formula.

If the level of GFR was less than 60 special calculator was used to assessing the risk for progression chronic kidney disease patients with DM using age, sex, eGFR and albuminuria(mg/day). For patients with a GFR of 30-59 ml / min / 1.73 m^2 the 5-year risk of progression to end-stage renal failure (ESRD) in the meaning 0-5% may be considered low, in 5-15% interval as moderate, and> 15% as high.

Results and discussion. 75% of patients have glycated haemoglobin ≥7.5%, 85% of patients have Low-density lipoprotein(LDL)>1.8 and 90% - has body mass index (BMI)> 25. In the 55% cases albumin/creatinin (ALB/CRT) ratio >20 mg/dL was revealed. Comorbid conditions in patients were as follows: in 75% - coronary artery disease, in 45% - fatty liver diseases, in 60% - arterial hypertension ,

The mean value of laboratory values [Lower quadrant; Upper Quadrant] for the observed patients are as follow: glycated haemoglobin - 9,08 [7,4; 12,1] %, LDL - 2,31 [1,1; 2,9] (mmol/l), high-density lipoprotein (HDL) - 1,73 [1,3; 1,7] (mmol/l), triglycerides (TGC) - 1,26 [1,1; 2,9] (mmol/l), cholesterol - 5,42 [5,1; 7,2] (mmol/l), ALB/CRT ratio – 13,4 [12,1; 26,1] (mg/L), proteinuria - 0,99 [0,91; 2,3] (g), GFR – 47.17 [46,1; 68,9] (ml / min).

The analysis of the study results showed that 6 of patients with diabetes mellitus had GFR less than 60 ml/min/1.73 m^2. So 4 out of 18 patients had lower risk of CKD progression and 8 patients had moderate risk, and 6 had a high risk of CKD progression.

A total of 7 patient took a single drug type, 6 patient took a combinations of 2 drug, 3 patient took combinations of 3 drugs and 3 did not take drug at all. Major drug used to reduce blood sugar: biguanide (metformin) in 70 % of patients, sulfonylureas (glyburide. glipizide) in 20 % of patients, insulins (monoinsulin, glargine, glulizin) in 50 % of patients.

Conclusions. Analysis of clinical data has shown that the risk of progression of chronic kidney disease includes also patients with diabetes mellitus who require early prescription of the risk modifying treatment with the inclusion of an inhibitor of the sodium-dependent glucose transporter type 2 in order to stop the progression of the disease and conduct secondary prevention of cardiovascular accidents.

References:

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