

case (CVD). Low-grade inflammation, uric acid (UA) and lipids disorders are important in kidney damage and CVD development in hypertensive patients.

Objective: To investigate the relationship between high sensitive C-reactive protein (hs-CRP), UA, lipids levels and renal function in patients with hypertensive CKD stage II-III.

Design and Methods: We examined 98 untreated non-diabetics essential hypertensive patients with II and III stage of hypertensive CKD. Inflammatory marker hs-CRP was evaluated by immunoassay, UA serum concentration was determined by fermentative method. 24-h urinary collection for estimation of glomerular filtration rate (GFR) was used. Microalbuminuria (MA) was detected in 24-h urinary samples.

Results: The patients were divided into 2 groups: gr.I pts. – with CKD stage II (n=51) and gr. II pts – with CKD stage III (n=47). Gr. I pts. had significantly lower hs-CRP, UA, total cholesterol, triglycerides and MA than gr. II pts. ($p < 0,04$, $p < 0,001$, $p < 0,001$, $p < 0,01$, $p < 0,001$ accordingly). In univariate analysis GFR was related to hs-CRP ($r = -0,19$, $p < 0,05$), UA ($r = -0,31$, $p < 0,002$), total cholesterol ($r = -0,40$, $p < 0,001$), LDL-C ($r = -0,38$, $p < 0,001$), triglycerides ($r = -0,25$, $p < 0,01$). No correlation was found between hs-CRP and lipid parameters.

Conclusion: Low-grade inflammation, uric acid, total cholesterol and triglycerides were significantly associated with kidney function in hypertensive patients. We suggest that the mechanisms underlying the increased risk for CVD and kidney damage in patients with hypertensive CKD may relate to the combined effects of low-grade inflammation, lipids disorders and uricemia.

PP.30.208 KIDNEY FUNCTION EVALUATION IN THE INTERPRETATION OF CARDIOVASCULAR RISK IN THE GROUP OF HYPERTENSIVE PATIENTS

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Objectives: Usefulness of kidney function evaluation in the interpretation of cardiovascular risk in the group of patients with arterial hypertension.

Design and Methods: 58 hospitalized hypertensive patients (20 women and 38 men) were divided in two groups: A- 28 patients without coronary artery disease (9 women and 19 men) and B- 30 patients with coronary artery disease (11 women and 19 men). The average age of the group A- 57,79 yrs, B-65,67 yrs. Following measurements were taken on each patient: SBP, DBP, level of glycaemia, uric acid, HDL, LDL and total cholesterol, triglycerides, urea, creatinine, BMI. We also assessed the prevalence of chronic kidney disease (CKD) using estimating GRF (MDRD formula) in these groups. The t-student test was used for the statistical analysis, \bar{n} Spearman was taken to analyze the correlation of statistically significant values.

Results: According to MDRD formula 79,31% of all hypertensive patients had CKD. 1 stage of CKD was found: in the group A in 25%, in the group B in 6,67%. 2 stage of CKD was found: in the group A in 39,29%, in the group B in 50%. 3 stage of CKD was found: in the group A in 14,29%, in the group B in 23,33%. Only 20,69% of all patients had estimating GRF (MDRD formula) in the reference ranges. We also revealed positive correlation between diastolic blood pressure and GFR (MDRD formula) in the group of hypertensive patients without coronary artery disease ($p = 0,0021$).

Conclusions: We noticed that hypertensive patients with coronary artery disease, in greater percentage, had more severe chronic kidney disease than hypertensive patients without coronary artery disease. The positive correlation between DBP and GFR (MDRD formula) in the group of hypertensive patients without coronary artery disease pointed to a prognostic value of kidney function evaluation in the interpretation of cardiovascular risk in this kind of patients.

PP.30.209 MICROALBUMINURIA AND CARDIOVASCULAR RISK IN HYPERTENSION PATIENTS. ANNUAL EVOLUTION OF THE MAUASTUR STUDY

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Objective: To evaluate the relationship of microalbuminuria (MA) with cardiovascular risk factors (CVRF) and cardiovascular disease in patients with hypertension after a year of follow-up.

Methods: A descriptive, cross sectional study of a 5 years prospective study. Population: Random selection of hypertensive patients treated in primary care. The following variables were analyzed and compared in visit 1 (V1) and visit 2 (V2): associated cardiovascular risk factors, target organ damage (TOD) and associated clinical diseases (ACD) defined following ESH-ESC 2007 guidelines. Microalbuminuria was defined by albumin-creatinine ratio ≥ 22 mg/g in males and ≥ 31 mg/g in women in an isolated urine sample.

Results: 616 patients were selected, 322 men (52.3%); mean age 66 ± 10 years. Comparative analysis between V1 and V2 were: systolic blood pressure 144 ± 73 mmHg vs 136 ± 14 mmHg, $p = 0,000$; diastolic blood pressure 83 ± 10 mmHg vs 80 ± 9 mmHg, $p = 0,000$. 130 patients (21%) had MA in V1 and 97 (15.7%) in V2, $p = 0,015$, OR 1.43 (1.06–1.93). The relation of MA in V1 and V2 were: diabetes 46.9% vs 40.2%, $p = \text{NS}$; NS; hypercholesterolemia 57.4% vs 57.7%, $p = \text{NS}$; obesity 50% vs 47.4%, $p = \text{NS}$ and smoke 10.8% vs 14.4%, $p = \text{NS}$. renal failure 26.9% vs 24.7%, $p = \text{NS}$; slight increase in plasma creatinine 9.2% vs 7.2%, $p = \text{NS}$; left ventricular hypertrophy 9.2% vs 10.3%, $p = \text{NS}$. The MA was more prevalent in patients with establish cardiovascular or kidney disease 27.7% 32.3% vs 30.9%, $p = \text{NS}$; coronary heart disease 14.6 vs 12.3%, $p = \text{NS}$, peripheral vascular disease 11.5% vs 9.5%, NS; stroke 4.6% vs 4.8%, $p = \text{NS}$, and heart failure 3.1% vs 6.1%, $p = \text{NS}$. The degree of BP control in V1 y V2 was: 30.8% vs 53.6%, $p = 0,000$, OR 2.63 (1.44–4.76) and patients were treated with ARB or ACEI: 78.5% vs 83.5%, $p = \text{NS}$. The prevalence of high or very high CVR 91.5% vs 88.7%, $p = \text{NS}$.

Conclusions: After a year of follow-up, prevalence of MA was decreased significantly, and dependent of the degree of BP control increased. There were no differences in the relation of MA with CVRF, TOD or ACD.

PP.30.210 SEVERE UNCONTROLLED HYPERTENSION FOLLOWING TRAUMATIC RENAL INJURY

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Background: A 48-year-old man presented with severe left flank pain and haematuria, following slipping in the bath and falling hard on to his left side. On admission to the Emergency department he was hypertensive with a blood pressure (BP) of 205/91 mmHg with a pulse rate of 45 beat per minute.

Method and Results: Computed tomography (CT) scanning revealed a severe left renal injury with evidence of persistent bleeding, therefore the patient proceeded to laparotomy. Complete transection of the left kidney with massive surrounding haematoma was confirmed, requiring total nephrectomy.

Throughout the operation his systolic BP was persistently above 200 mmHg, despite aggressive pharmacological control akin to the management of surgical pheochromocytoma patients. However when the renal artery was clamped the BP fell sharply to 90/30 mmHg and temporary administration of noradrenaline was necessary.

Conclusion: Systemic hypertension following kidney trauma was initially described by Erwin Page, hence the eponymous term Page kidney. It usually involves blunt trauma to the back or flank, leading to unilateral kidney damage. It is believed compression of the kidney parenchyma from renal capsule haematoma leads to hypoperfusion, and subsequent renin release and activation of the renin-angiotensin-aldosterone axis; resulting in systemic hypertension.

Traditionally Page kidney has been treated with nephrectomy. In cases with a single functioning kidney, conservative management with fluid control and anti-hypertensives has been adequate, though chronic hypertension is a recognised long term complication. In certain cases resolution of hypertension occurred with surgical removal of the renal capsule and haematoma, with preservation of the kidney. There is also increasing use of radiological drainage of the haematoma.

Page Kidney is a rare but potentially treatable cause of secondary hypertension, which can occur following a seemingly minor injury.