FEATURES OF ENDOTHELIAL DYSFUNCTION IN RENAL HYPERTENSION

Efremova O., [1)] *Demikhova N.,* [1)] *Nagorna A.,* [1)] *Nagorna K.*
Belgorod State National Research University;
[1)]*Sumy State University*

Endothelial dysfunction is a marker of vascular disease, as well as the development and progression of hypertension in chronic kidney disease.

Objective: To study the characteristics of endothelial dysfunction in patients with renal hepertension.

Results. The study included patients with hypertension in chronic glomerulonephritis (n = 105; 67 men and 64 women). Vasomotor function analysis showed that the vasodilatory response in less then decompression was expressed in patients with night-peaker – 5.47 (3.04; 11.72) % (p <0.00014, compared with the other groups, which is in the group of patients with non-dipper was 11.63 (7.76; 18.92) %, dipper 8.94 (7.04; 15.46) %, and over-dipper 7.24 (5.82; 13.32) %. inverse correlation in the form of reduced vasodilatory effect on the diagnostic tests available between concentric hypertrophy r = – 32 (p = 0.001), stroke volume, r = – 0.32 (p = 0.02), the type of the daily blood pressure non-dipper r = – 0.27 (p = 0.009), the degree of nocturnal diastolic blood pressure r = – 0.25 (p = 0.014), and stroke volume index r = –0.25 (p = 0.016) rates dilation of the brachial artery in the sample with nitroglycerin r = – 0.24 (p = 0.017) and normal geometry r = – 0.22 (p = 0.026), the type of change in blood pressure dipper r = – 0.22 (p = 0.032), the degree of nocturnal systolic BP r=-0,22 (p=0,030) and the ratio of the velocity of early diastolic filling and atrial r = – 0.21 (p = 0.037). direct correlation occurred between endothelial dysfunction and the degree of diastolic dysfunction r = 0.37 (p = 0.038), the relative thickness of LV, r = 0.28 (p = 0.008), concentric remodeling, eccentric hypertrophy (r = 0.25 and 0.23, respectively, p = 0.015 and p = 0.020), diastolic dysfunction rigid type r = 0.25 (p = 0.026), normal LV geometry r = 0.21 (p = 0.036), night-peaker diurnal changes in blood pressure r = 0.23 (p = 0.026), systolic myocardial dysfunction r = 0.21 (p = 0.036).

At correlation analysis between lipid indicators vasotonics negative correlation dependence between 6-ketoPGF1 α and holesterol (r = – 0.28 and r = – 0.31, accordingly, p < 0.05), and LPLD (r = – 0.29 and r = – 0.32, accordingly, p < 0.05) has been revealed. Given results testify to negative influence of DL on level of vasodilatators and antiagregants. It can be connected with oppression prostatsiklin-sinthetase activity and changes of accumulation and sensitivity of cells to NO. Correlation dependence between tromboxane B2 and triglyceride level has been especially expressed in group of patients with DL IV type (r = 0.43, p < 0.01). Level of another vasoconstrictor – endothelin-1 correlated with concentration of holesterol and LPLD (r = 0.36 and r = 0.38, p <0.05).

Conclusion. The presence of endothelial dysfunction is the factor most often combined with left ventricular remodeling in concentric type. Dysbalance of endothelial and cellular factors that finally leads to vasoconstriction.

Актуальні питання теоретичної та практичної медицини : збірник тез доповідей II Міжнародної науково-практичної конференції студентів та молодих вчених, м. Суми, 16-18 квітня 2014 р. / М.В. Погорєлов. - Суми : СумДУ, 2014. - Р. 56.