

Abstrakt aj

This study contributes to knowledge of pathophysiology and organ complication in endocrine hypertension, especially in primary hyperaldosteronism and pheochromocytoma. Study in patients with pheochromocytoma showed higher arterial stiffness due to catecholamine overproduction. In this study we pointed out that predominantly norepinephrine levels and concomitant high blood glucose levels were independently associated with arterial stiffness. Similarly, a study in patients with primary hyperaldosteronism showed higher arterial stiffness in comparison with a comparable group of essential hypertension. This finding should be one of the factors which contribute to higher cardiovascular morbidity and mortality in patients with primary hyperaldosteronism. A study of biochemical markers of endothelial dysfunction has still showed contradictory conclusions. The position of the markers in clinical practice has not been resolved yet. In our study, we did not reveal any convincing evidence of differences in the levels of biochemical markers of endothelial dysfunction between the essential and endocrine hypertension. The contemporary accepted marker of endothelial dysfunction and atherosclerosis is C-reactive protein as a marker of a chronic low inflammation process. Our study in patients with pheochromocytoma showed that a catecholamine excess is accompanied by an increase in inflammatory markers including C-reactive protein, which was reversed by the tumor removal. This finding showed another possibility how catecholamines could influence the arterial wall including endothelial dysfunction and arterial stiffness. Finally, the excess of catecholamines in patients with pheochromocytoma is associated with a higher long-term blood pressure variability in comparison with patients suffering from essential hypertension, especially in subjects with inverted circadian blood pressure rhythm. The tumor removal resulted in the amelioration of the previously increased blood pressure variability. These conclusions are also important for the clinical practice and bring crucial prognostic information in relation to cardiovascular morbidity and mortality in patients with endocrine hypertension. The early recognition of the condition is important as this condition may predispose to the increased mortality from cerebrovascular disease, and is often reversible with target therapy. It is necessary to consider this diagnose and in case of any suspicion send patients to a diagnostic centre.