

Metabolic disorders and the state of the renin–angiotensin–aldosterone system in obese patients with resistant hypertension

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Background: The aim was to establish the features of metabolic disorders and the state of the renin–angiotensin–aldosterone system (RAAS) in obese patients with true and pseudo-resistant arterial hypertension (AH).

Material and Methods: The study included 200 patients with uncontrolled AH and obesity. Patients were initially prescribed dual antihypertensive therapy. Those patients who did not reach target blood pressure (BP) levels after 3 months on dual therapy were additionally assigned a third antihypertensive drug. Of the 98 patients who were assigned triple therapy, 48 patients did not reach target BP (27 patients had pseudo-resistant and 21 patients had true resistant AH). These patients were additionally prescribed a fourth antihypertensive drug (spironolactone). The effectiveness of the treatment was evaluated 6 months after the start of antihypertensive therapy.

Results: After 6 months of therapy, unlike patients without resistance, individuals with resistant AH differed more pronounced metabolic disorders and higher activity of the RAAS. Patients with true resistance differed from pseudo-resistant patients with significantly lower body mass index (BMI); in the absence of differences in BP levels, lipid and carbohydrate profiles, patients with true resistance had significantly higher levels of aldosterone, higher adiponectin levels, and lower leptin level.

Conclusions: Obese patients with true resistance differed from pseudo-resistant patients with significantly lower BMI, higher aldosterone levels, and less pronounced adipokines imbalance.

