

METABOLIC EFFECTS OF TELMISARTAN IN PATIENTS WITH CHRONIC HEART FAILURE AND DIABETES MELLITUS TYPE 2

(Oral presentation)

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INTRODUCTION: The aim of the treatment of coronary artery disease (CAD) and chronic heart failure (CHF) is modification of cardio-vascular risk factors (blood pressure, dyslipidemia, obesity, glucose level). Therefore, choosing the medication for the treatment of patients with CHF and diabetes mellitus type 2 (DM) attention should be given for its metabolic effects.

AIM: The goal was to determine the metabolic effects of telmisartan.

MATERIALS AND METHODS: 98 patients of senile age with combined course of CHF due to CAD complicated by diabetes mellitus type 2 were under investigation. Two main groups were formed: A – 32 patients who were treated according to standard protocol (beta- blockers, aspirin, statin), B – patients for whom telmisartan in a daily dose of 40 mg was prescribed in addition to standard protocol. Levels of basal and post-prandial glycaemia, total cholesterol (TC), low-density lipoproteins (LDL), high-density lipoproteins (HDL) and triglycerides (TG) were measured before treatment and after 3 months.

RESULTS: As the result of the complex treatment significant reduction of basal glycaemia for 33% and post-prandial glycaemia for 18% in group A ($p < 0,001$) was observed, but normal values were not reached. Instead, in the group B significantly lower fasting blood glucose levels ($4,6 \pm 0,18$ mmol/L against $8,5 \pm 0,82$ mmol/L, $p < 0,001$) and levels of post-prandial glycaemia were detected together with reaching the normal values. More significant changes of blood lipids spectrum were observed in the group B: evident TC decrease for 16% ($p < 0,001$), LDL – for 52% ($p < 0,001$), TG – for 12,5% ($p < 0,001$) together with increase of HDL for 48% ($p < 0,001$) compared to the correspondent values before treatment. Above-mentioned hypoglycaemic, anti-atherogenous effects of telmisartan are probably stipulated by PPAR γ - receptor stimulating properties.

CONCLUSION: The addition of telmisartan to the standard protocol treatment of CHF with concomitant type 2 diabetes mellitus showed beneficial metabolic effects, compared with the group that did not receive telmisartan.

Keywords: chronic heart failure, diabetes mellitus type 2, telmisartan, PPAR γ -receptors