

POSTER SESSION

LATE-BREAKERS SESSION 1

THE INFLUENCE OF DAPAGLIFLOSIN ON THE LEVEL OF BLOOD PRESSURE IN PATIENTS WITH TYPE 2 DIABETES MELLITUS AND ARTERIAL HYPERTENSION

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Objective: The combination of type 2 diabetes mellitus (DM-2) and arterial hypertension (AH) increases the risk of development of cardiovascular complications in 2–3 times. One of the mechanisms for the development of DM-2 is the increasing of the reabsorption of glucose by the kidneys, that is why we have the introduction into the practice of new class of oral hypoglycemic drugs - sodium-glucose co-transporter 2 inhibitors (SGLT2).

Purpose of our study was to determine the effect of dapagliflozin on blood pressure in patients with type 2 diabetes mellitus and arterial hypertension.

Design and method: 21 patients with DM-2 and AH were examined. All patients received metformin before using of combined hypoglycemic therapy, that included dapagliflozin, which was prescribed to improve glycemic control. In all patients, the level of HbA1c was determined as the main indicator of diabetes compensation. Blood pressure was monitored against the backdrop of the therapy.

Results: The average level of HbA1c was $8.71 \pm 0.2\%$, that was the reason for the revision of therapy and the addition of dapagliflozin to the regimen. The examined patients had the following average indices of systolic blood pressure (SBP) - 162.50 (148.00 - 174.00) mm Hg and diastolic blood pressure (DBP) - 98.00 (96.00 - 108.00) mm Hg. Evaluation of treatment results was carried out after 3 months of treatment. A significant decreasing in HbA1c was found by 0.83 (0.75 - 0.9)%. An increase in diuresis with dapagliflozin therapy contributed to decreasing in blood pressure. Thus, monitoring of blood pressure showed a decreasing in SBP on average by 10.2 (9.4 - 10.9) mm Hg and DBP by 8.8 (8.2 - 9.6) mm Hg.

Conclusions: The using of dapagliflozin in combined hypoglycemic therapy with metformin promotes an additional reduction of blood pressure parameters and may be justified in patients with DM-2 and concomitant AH.

PREVENTIVE UTILITY OF THE INTEGRATION OF LIFE'S SIMPLE 7 DESIGNED BY THE AMERICAN HEART ASSOCIATION AND THE MODEL FOR CARDIOVASCULAR RISK PREDICTION IBERSCORE

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Objective: To assess the clinical usefulness of the application of the predictive model of cardiovascular risk (CVR) IberScore combined with the recommendations of Life's Simple 7 (LS7) of the American Heart Association (AHA) in a working population.

Design and method: IberScore model is a predictive function for fatal and non-fatal cardiovascular (CV) events derived from a cohort of 774,404 workers (70.4% of the target population) between 16–65 years (average of 35.7 (SD = 10.7)) without CV disease at admission, which was followed for a period of 10 years. Age, sex, total cholesterol, HDL, SBP, glycemia, obesity and a history of dyslipidemia, hypertension and diabetes were used as factors of CVR. Using this model, patients were classified into 4 risk levels. It was also assessed the ideal health status according to the recommendations of Life's Simple 7 (which includes healthy diet, physical activity, smoking cessation, BMI < 25 kg/m², total cholesterol without treatment < 200 mg/dl, blood pressure without treatment < 120/80 mmHg and basal glycemia < 100 mg/dl). Finally, these classifications were compared with the appearance of CV events in a 10-year follow-up.

Results: The results showed a high sensitivity (given that the predictive capacity reached 82% of the cardiovascular events) by using the IberScore, a logistic flex-

ible parametric model to predict 10-year cardiovascular risk. Likewise, the clinical usefulness of the Life's Simple 7 recommendations could be verified in order to reduce the incidence of total CV events (fatal and non-fatal).

Conclusions: The integration of the predictive model IberScore with the preventive recommendations Life's simple 7 of the AHA applied to the working population would allow a more efficient cardiovascular prevention.

WHEN TO SEARCH FOR CEREBROVASCULAR LESIONS IN PATIENTS WITH RENAL ARTERY FIBROMUSCULAR DYSPLASIA: HINTS FROM THE ARCADIA-POL STUDY

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Objective: Previous reports have shown a high prevalence of concomitant renal and cerebrovascular Fibromuscular Dysplasia (FMD). However, systematic whole body CT scan was performed in only few studies. Furthermore, distinctive features of patients with or without cerebrovascular FMD have not been reported in detail. The aim of this study was to assess the prevalence of cerebrovascular involvement in patients with renal FMD included in the ARCADIA-POL study and to look for differences between patients with and without cerebrovascular involvement.

Design and method: We reviewed all patients included in ARCADIA-POL. Only those with a confirmed diagnosis of renal FMD were eligible for the analysis. All patients underwent a detailed evaluation including CTA from brain to pelvis. Cerebrovascular involvement was defined as the presence of any of the following lesions: stenosis, aneurysm, dissection and/or S-shaped cervical artery.

Results: Of 203 patients with renal FMD (84% women, age at diagnosis: 42.1 ± 15.7 yo), 29% (n = 58) had cerebrovascular FMD, among whom 45% harboured intracranial aneurysms. When compared with patients without cerebrovascular FMD, patients with cerebrovascular FMD were overwhelmingly of the multifocal renal subtype (93% vs. 75%, p = 0.004), older at FMD diagnosis (46.3 vs. 40.4 yo, p = 0.01) and more frequently smokers (35% vs. 21%; p = 0.046). They also presented more often with bilateral renal FMD (35% vs. 17%, p = 0.002) and FMD in a third vascular bed (36% vs. 4%, p < 0.001).

Conclusions: In the ARCADIA-POL registry, the prevalence of cerebrovascular FMD in patients with renal FMD was lower than in previous studies. Notably however, almost half of them harboured cerebral aneurysms. Patients with cerebrovascular FMD were overwhelmingly of the multifocal subtype, and had more often bilateral lesions and widespread disease. Screening for cerebrovascular FMD should be prioritized in patients with bilateral renal FMD of the multifocal subtype. The interest of screening for cerebrovascular FMD in patients with focal renal FMD is questionable.

EFFECT OF MITRAL INFLOW PATTERN ON INTRAVENTRICULAR PRESSURE GRADIENTS IN HYPERTENSION RATS

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Objective: Non-invasive intraventricular pressure gradients (IVPG) based on color m mode is a load-independent diastolic function evaluation technique established in recent years. The mitral inflow pattern dominated by heart rate in hypertension is a strong predictor of prognosis. However, data on the effects of mitral inflow pattern on IVPG is lacking.