was no significant difference of BMI with M and A, M decreased the variable (33.09 ± 1.19 to 32.47 ± 1.19, p = NS).

By using multiple regression analysis, there was an independent association of the diminution of leptin levels with the decrease of insulin resistance (HOMA) (r = 0.40, p < 0.05), BMI (r = 0.76, p < 0.03), and levels of triglycerides (r = 0.28, p < 0.04) in the M group. There was no significant changes with either drug on serum levels of LDL-C, HDL-C, and plasma glucose. Serum leptin changes observed in obese hypertensive patients receiving M was associated to a better adjustment of the metabolic profile in obese. The impact of such treatment in this class of patients requires further assessment.

Key Words: Leptin; insulin resistance; obesity

A090
HEMODYNAMIC RESPONSE TO BOLUS IV FENOLDOPAM IN HYPERTENSIVE PATIENTS IS INDEPENDENT OF BASELINE HEART RATE
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Continuous iv infusion of the selective DA-1 agonist, fenoldopam (F) produces sustained blood pressure (BP) reductions and modest heart rate (HR) increases in hypertensive (HT) patients. In some clinical settings rapid but transient reductions in BP with iv bolus injections of F may be desirable but the hypotensive effect may be exaggerated by β-blockade. As part of a larger blinded trial we examined the hemodynamic effect of increasing bolus doses of F (3 to 300 μg) given iv to 15 patients with stage I-II HT randomized to receive either placebo or atenolol 100 mg/d for 1 week. After 1 week of the alternative treatment, bolus iv F was repeated. Since the trial is still blinded, patients were arbitrarily divided into low (L) and high (H) groups based on resting heart rate (HR) before each test. Pre-F systolic BP was comparable in the two groups (170 ± 6 vs 165 ± 8 mmHg, mean ± SEM) while HR was significantly greater in H (68 ± 2 vs 58 ± 2 bpm, p < 0.001), as expected. Despite these baseline differences, regression characteristics of the bolus dose-dependent BP reduction and HR increase were virtually identical in the two treatment periods. We conclude that the bolus dose-response to F is predictable and that a lower resting HR, probably due to oral β-blocker, does not influence the hemodynamic response to iv bolus fenoldopam.

Key Words: Dopamine agonist; beta-blockers; bolus iv therapy

A091
STUDY ON CHANGES OF PLASMA SUBSTANCE P IN ESSENTIAL HYPERTENSION WITH LEFT VENTRICULAR HYPERTROPHY PATIENTS AND THE EFFECTS OF PROMOTING BLOOD CIRCULATION AND ELIMINATING PHLEGM
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Left Ventricular hypertrophy (LVH) is a common complication of essential hypertension (EH). Substance P (SP) is a protective substance of myocardium. The purposes of this study were to explore the relationship between the plasma SP and EH with LVH (EH-LVH) and the effect of promoting blood circulation and eliminating phlegm (PBCEP) on EH-LVH. The study group consisted of 30 patients with EH and 15 without LVH (EH-NLVH). Patients with EH-LVH were not treated by antihypertensive drugs two weeks before the test. PBCEP consists of salviae miltiorrhizae 10 g, liguistrazine 15 g, astraagali 15 g, hematite 20 g, achyranthes bidentata blume 15 g, Pinellia ternate 15 g, ige pubescens hook 20 g, macrostemon bunge 15 g and cinnamomum 10 g. These drugs were decocted by water and taken orally once daily. The course of treatment is three months. Before and after treatment, the changes of SP in patients with EH-LVH were measured by radioimmunoassay. At the same time, the changes of plasma renin activity (PRA), angiotension II (Ang II), Left ventricular mass index (LVMI) and mean aterial pressure (MAP) were measured. We found that the level of plasma SP in patients with EH-LVH was markedly lower than that of patients with EH-NLVH and healthy subjects (p < 0.01); the levels of PRA and Ang II were higher than those in control group (p < 0.01, or < 0.05). The levels between SP and LVMI, MAP, PRA, Ang II were markedly negative correlated, (r = −0.714, −0.819, −0.681, −0.758, P < 0.01), while levels between LVMI and PRA, Ang II were markedly positive correlated (r = 0.814, 0.763, P < 0.01). These findings show that the SP may be involved in the pathogenesis of EH-LVH and the mechanism of PBCEP reversing LVH may be related to its increasing the plasma SP.

Key Words: Essential hypertension; left ventricular hypertrophy; plasma substance P; promoting blood circulation and eliminating phlegm

A092
FEASIBILITY OF A LIFESTYLE MODIFICATION PROGRAM IN ESSENTIAL HYPERTENSIVES AND ITS INFLUENCE ON THE ANTIHYPERTENSIVE EFFECT OF AMLODIPINE
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It has been claimed that changes in lifestyle and dietary habits enhanced the antihypertensive effects of the antihypertensive drugs. However in the clinical practice is very difficult to achieve it. The aim of this study was to assess the efficacy of an informative program (IP) provided to essential hypertensives (EH) during a 6-month period. The program consists in five booklets about the risk of HBP, the importance of salt and alcohol restriction, weight loss and physical activity. 1341 untreated EH (596 M, mean age 60.4 ± 10 years) were enrolled in the study. All were treated with amlodipine (5 to 10 mg od) and randomly assigned to follow (IP) (686 EH) or not (C) (655 EH) the IP during a 6-month period. At baseline both groups were similar in all the