proved utilization of drugs. AD program implementation included individual or group meetings between the academic detailer and providers, distribution of promotional materials, provider profiling and lectures. Impact was measured by assessing both changes in patterns of medication use as well as comparison to all other US VA healthcare facilities at the follow up time period to evaluate whether the changes noted were part of the VA national trend. For analysis purposes, we used treatment day equivalents derived from a national pharmacy database for each of 4 major classes of antihypertensive medications. At baseline (March - August 1998) 7.7 million treatment days of medication were dispensed. This comprised 13.8%, 22.8%, 35.8% and 27.5% of thiazide (THI), beta blocker (BB), ACE inhibitors or angiotensin receptor blockers (ACE/ARB) and calcium antagonist (CA) treatment days, respectively. During the follow up period after the AD intervention (March - August 1999), 9 million treatment days were dispensed reflecting growth in the treated population. The proportions were now 15.1% THI, 24.5% BB, 36.2% ACE/ARB and 24.2% CA (p<0.01 for the change in each class). These figures for the same follow up time frame in all other VA healthcare facilities were 12.9% THI, 21.2% BB, 36.7% ACE/ARB and 21.9% CA use. Evaluation of 351 randomly selected patients’ blood pressure recordings showed an average BP (SD) of 141.0/76.3 (18.2/11.9) at baseline in comparison to 139.7/76.0 (19.2/12.3) at follow up (p values 0.27 systolic, 0.30 diastolic). We conclude that the AD program to improve use of hypertensive medications resulted in greater THI and BB use and decreased CA use from baseline to follow up. Our medication use during the follow up period differed from all other VA healthcare facilities. This suggests greater adherence to VA and JNC-VI guidelines. Lastly, changes in medication utilization did not affect the average blood pressure in our treated patient population. Academic detailing as a tool for guideline promotion is a highly effective system to improve hypertension management.

Key Words: Practice Guidelines, Academic Detailing, Provider Profiling

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EFFECT OF LISINOPRIL IN LEFT VENTRICULAR SYSTOLIC AND DIASTOLIC FUNCTION IN HYPERTENSIVE PATIENTS WITH LEFT VENTRICULAR HYPERTROPHY

Ioannis G. Styliadis, Nikolaos Lefkos, 1Cardiology, Papageorgiou General Hospital, Thessaloniki, Greece, 2nd Dpt of Internal Medicine, Ippokratio Hospital, Thessaloniki, Greece

The aim of this study is to evaluate the changes in hypertension, systolic and diastolic function of left ventricular hypertensive patients who treated with lisinopril.

20 hypertensive patients (14male, 6 female mean age 52.05+8.23 years) with left ventricular hypertrophy were studied. All patient were treated with 20mg lisinopril for a period 4 months.

An analysis of the trough-to-peak ratio for sitting systolic and diastolic blood pressure revealed values of 0.72 and 0.67. The echocardi-Doppler evaluation was performed both at rest and at the peak of test. Left ventricular dimensions were obtained from two-dimensionally guided M-mode tracings using the criteria of the American Society of Echocardiography. Left ventricular peak filling rates and filling rate integrals were measured by a pulsed Doppler technique. Lisinopril caused a significant reduction in systolic and diastolic blood pressure at rest (p < 0.05 and p < 0.05) and during exercise (p < 0.05 and p < 0.05). LVEDd, IVS and LV mass index were significant reduced after treatment with lisinopril (p < 0.05, p < 0.01 and p < 0.01) Ejection Fraction was increased (p<0.01) and end systolic pressure decreased (p<0.05) both at rest and during exercise . All the left ventricular filling parameters considered (E velocity, A velocity, E/A ratio) both at rest and during exercise were significantly improved after lisinopril treatment. This study demonstrates that short-term administration of lisinopril improve left ventricular systolic and diastolic function in hypertensive patients with LV hypertrophy.

Key Words: lisinopril, systolic function, diastolic function

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HEART RATE VARIABILITY: ACE-INHIBITION, ANGIOTENSIN II ANTAGONISM AND THEIR ASSOCIATION IN MILD HYPERTENSION

Giuseppe Barletta, Chiara Lazzari, Franco Franchi, 1Cardiovascular Ultrasound Section, A.O. Careggi, Florence, Italy, 2Internal Medicine, University of Florence, Florence, Italy

Angiotensin II is known to play a central role in the pathophysiology of hypertension. Few data are available about the relation between angiotensin II antagonism and the cardiac autonomic drive. We aimed at comparing the effects of the administration of ACE-inhibition alone, AT1 blockade alone and their association on the cardiac sympathetic drive in uncomplicated essential hypertension by means of heart rate variability, evaluated both in 24h Holter (FFT method, time and frequency domain indexes) and in short recordings (in supine position and during 60° tilting: autoregressive method, power spectral indexes). Twenty-one hypertensive patients (aged 42±4) were evaluated before and at the end of a three-week period treatment with either trandolapril (2 mg)or irbesartan (300 mg) : of them six patients (aged 41±3 yrs) were also given an association of trandolapril (0.5 mg) and irbesartan (150 mg). No significant differences in heart rate variability parameters were found between irbesartan and trandolapril when administered alone, although both drugs significantly and equally lowered blood pressure. Despite a similar reduction in blood pressure, the association between the two drugs induced a significant reduction in the cardiac sympathetic tone, as inferred by the reduction in the LF component (see figure).

In uncomplicated essential hypertension, chronic ACE-inhibition and AT1 blockade are not able to influence the cardiac autonomic drive explored by heart rate variability either in the resting position or after a sympathetic challenge. These two compound-classes appear to be equivalent in affecting the cardiac autonomic tone in mild essential hypertension. On the contrary, a sympatholitic effect can be detected at the cardiac level by the chronic concomitant administration of a ACE-inhibitor and AT1 antagonist in the same clinical setting.

Key Words: Angiotensin Antagonism, heart rate variability, sympathetic vagal balance

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CANRENONE COMPETES FOR THE SAME SITE OF OUABAIN ON NA+/K+-ATPASE

Silvano Balzan, Giuseppina Nicolini, Luciana Bellitto, Sergio Ghione, Umberto Montali, 1CNR, Clinical Physiology, Pisa, Italy, 2CNR, Clinical Physiology, Pisa, Italy, 3Internal Medicine, Pisa, Italy, 4CNR, Clinical Physiology, Pisa, Italy, 5Science of Man and Environment, Pisa, Italy

Recently several studies suggested the existence in human plasma of an endogenous digitalis-like factors (EDLF) similar to ouabain which could...