sity scores when V was compared to H, and decreased (negative slope) when V was compared to A. These data suggest that physicians are able to correctly pick the drug that results in better outcomes for a given patient.

Key Words: Propensity Score, Diuretic vs. Beta-Blocker, Outcomes

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EFFECTS OF PERINDOPRIL (PERI,,,) AND HYDROCHLORTHIAZIDE (HYDRO,,,) ON ENDOTELIAL FUNCTION IN RELATION TO BASELINE BLOOD PRESSURE AND SERUM ACE ACTIVITY

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The aim of the study was to evaluate changes of flow mediated arterial dilatation (FMD) in response to reactive hyperemia during treatment with Perindopril (Peri,,,) and Hydrochlorthiazide (Hydro,,,) in hypertensive patients.

Twenty male patients (mean age 48.8 +/− 8.4) with essential hypertension (EH) were enrolled. Exclusion criteria were coronary heart disease, diabetes, renal and liver insufficiency, arithmia requiring medical treatment. Patients were randomised to receive for 3 months either Peri,,, 4 to 8 mg a day or Hydro,,, 25 to 50 mg a day in crossover design.

FMD was measured by ultrasound imaging of the brachial artery in response to reactive hyperemiah. Serium Ace Activity was measured using modified Silverstein method. Blood Pressure (B.P.), Ace Activity and FMD were assessed at baseline and after each treatment arm.

In patients with endotelial dysfunction (n =14) , F.M.D. was improved during treatment with both drugs. Changes of FMD in patients with normal endotelial function (n = 6) were not significant.Effect of Hydro,,, on FMD was superior to Peri,,, in patients with low baseline Ace activity (7.2% vs 10.7%).In Hydro,,, group dynamics of FMD were positively correlated to B.P. level at baseline while in patients receiving Peri,,, effect was independent of this variable. B.P.was effectively reduced by both drugs independently of baseline ACE activity.

Thus, anti-hypertensive therapy with Peri,,, and Hydro,,, improved FMD in patients with E.H. and indothelial dysfunction. Hydro,,,can be more beneficial in patients with low baseline ACE activity.

Key Words: Endothelial, Antihypertensive Drug, ACE Activity

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PICXEL: PERINDOPRIL/INDAPAMIDE HAS A GREATER BENEFIT ON LEFT VENTRICULAR HYPERTROPHY THAN ENALAPRIL

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PICXEL compares Left Ventricular Hypertrophy (LVH) regression in hypertensive patients receiving low-dose Perindopril/Indapamide (Per/Ind) or Enalapril (Ena). It is an international (9 countries), randomized, double-blind, controlled study in hypertensive patients with LVMI: females>100, males>120 g/m^2. After a 4-week placebo period, patients received either Per/Ind 2/0.625 mg or Ena 10 during 52 weeks with a possibility of doubling the dose twice (to Per/Ind 8/2.5 mg or Ena 40 mg) according to blood pressure. The LVH was assessed from M mode echo. tracings of left ventricle by a Central Echocardiography Committee in a final reading blinded to visits sequence, patient and treatment.

Similar baseline values were observed in the two groups for the 679 randomized patients: 47% men, 55 years old, SBP 164.2±14.6 mmHg, DBP 98.3±8.5 mmHg, LVMI 137.6±32.1 g/m^2. Results are shown in the following Table. Tolerability was good with respectively in Per/Ind versus (vs) Ena groups 4.1% vs 4.4% of related cough and 3.5% vs 1.2% of kaliemia<3.4 mmol/l.

ITT/End-Base	Units	Per/Ind (n = 341)	Ena (n = 338)	Between group
LVMI[1]	*g/m^2*	−10.1 ± 25.0***	−1.1 ± 23.5	$P < 0.001$
LVIDd	*mm*	−1.16 ± 4.08***	0.09 ± 3.88	$P < 0.001$
IVSTd	*mm*	−0.25 ± 1.86**	−0.14 ± 1.82	$P = 0.24$
PWTd	*mm*	−0.26 ± 1.58**	−0.02 ± 1.49	$P < 0.05$
SBP	*mmHg*	−21.9 ± 15.4***	−16.5 ± 16.0***	$P < 0.001$
DBP	*mmHg*	−10.5 ± 8.8***	−8.1 ± 9.7***	$P < 0.001$

*Within group difference (alpha 2.5%): *** $P < 0.001$, ** $P < 0.01$, [1]left ventricular mass indexed to body surface area*

PICXEL shows that in comparison to Ena, Per/Ind induces a significant more pronounced decrease in LVH parameters and blood pressure after 1 year. PICXEL confirms the superior efficacy of Perindopril/Indapamide to Enalapril as first line therapy in hypertensive patients with Left Ventricular Hypertrophy.

Key Words: Perindopril/Indapamide Combination, Left Ventricular Hypertrophy, Echocardiography

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EFFICACY OF DILTIAZEM ER AS ADD-ON ANTIHYPERTENSIVE THERAPY IN MILD TO MODERATE HYPERTENSION, AND ISOLATED SYSTOLIC HYPERTENSION (THE TIARA STUDY)

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Objective: To compare the mean dose of diltiazem ER (TIAZAC), added to current antihypertensive therapy, required to control blood pressure (BP) with dosage titration based on home electronic BP monitoring (hEBPM) or standard office sphygmomanometer (oSBPM).

Design and Methods: One-hundred-sixty-four patients (mean age, 62.5 years; 50% female) with DBP 90–100 mmHg and SBP <190 mmHg or isolated systolic hypertension (SBP 140–159 mmHg and DBP < 90 mmHg) were randomised to BP monitoring via hEBPM or oSBPM in a primary care setting. Patients were initially treated with diltiazem ER 180 or 240 mg, added to current antihypertensive therapy, titrated to 360 mg over 2 week intervals in patients not at a BP target of <140/90 mmHg. Patients were followed up for a maximum of 14 weeks, or 4 weeks if target BP was achieved.

Results: Of the 164 patients randomised, 141 completed the study. The mean baseline BP was 160.4/86.2 mmHg, and 157.2/88.4 mmHg, and mean starting dose of diltiazem ER was 207 mg and 200 mg, in the hEBPM and oSBPM groups, respectively. The proportion of patients reaching target BP were 81% and 87%, in the hEBPM and oSBPM groups, respectively, with the average dose required to reach target being 250 and 255 mg, respectively. Of the 141 evaluable patients, 14% and 35% were titrated to 300 and 360 mg, respectively.

Conclusion: Treatment of patients to BP target remains a significant clinical challenge. The TIARA study suggests that over 80% of patients can reach a BP target of <140/90 mmHg with appropriate titration of