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DIFFERENTIAL EFFECTS OF B-BLOCKERS IN COMBINATION WITH RENIN ANGIOTENSIN SYSTEM BLOCKERS ON MICROALBUMINURIA IN PATIENTS WITH TYPE 2 DIABETES AND HYPERTENSION

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Presence of microalbuminuria [(MAU), urine albumin:creatinine ratio (ACR) 30-300 mg/g], in patients (pts) with hypertension (HTN) and type 2 diabetes (T2DM) is associated with a high risk of cardiovascular events. The effect of addition of a β-blocker to an ACE or ARB on ACR in pts with HTN and T2DM was a pre-specified secondary endpoint of the GEMINI trial. Metoprolol [(M), 50-200 mg bid] was compared to carvedilol [(C), 6.25-25 mg bid] on change in ACR. After wash-out of all antihypertensive medications except ACE/ARB pts were randomized (C:498;M:737; double-blinded), titrated to target BP (<130/80 mmHg) and followed for 5 months. Hydrochlorothiazide (12.5 mg) and dihydropyridine calcium antagonist were added if needed to achieve goal BP. Evaluable pts (n=930, C:388;M:542) were defined as having valid paired ACR at screening and month 5 (M5). At screening, ACR was normal in 78% (C) and 80% (M) of pts; MAU was present in 20% (C) and 18% (M); ~3% per group had macroalbuminuria. Carvedilol reduced ACR (%change; 95%CI; p-value): -14.0%; -22.3%, -5.0%, 0.003 in all pts; metoprolol had no effect (2.5%; -6.1%, 11.9%; 0.579). The resultant percent treatment difference (C vs M) was 16.2%, 95%CI -25.3,-5.9, p=0.003. Of those pts with normalbuminuria at screening, significantly fewer pts progressed to MAU on carvedilol [6.6% (C) vs 11.1% (M)], and the odds of progressing to MAU were 47% smaller for subjects receiving carvedilol compared to those receiving metoprolol (odds ratio 0.53, 95% CI 0.30-0.93, p=0.03). BP at trial end was similar between groups (SBP/DBP± sd)C:131.4±12.7/ 77.6±8.6; M:131.7±13.9/ 76.7±8.4. Thus, in the presence of an ACE/ARB both beta blockers reduced BP adequately. However, carvedilol reduced MAU development as well as lowered existing ACR compared to metoprolol.

Key Words: Beta Blockers, Diabetes, Microalbuminuria

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ASSESSMENT OF THE EFFICACY, SAFETY AND TOLERABILITY OF A FIXED DOSE COMBINATION OF PERINDOPRIL/INDAPAMIDE (2MG/0.625 MG) IN ADULT PATIENTS WITH MILD TO MODERATE HYPERTENSION

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Objective: To assess the efficacy, safety and tolerability of a fixed dose combination of Perindopril 2 mg and Indapamide 0.625 mg in adult Indian patients with mild to moderate hypertension.

Methods: A prospective, multicentric, rater-blind, non-comparative study was conducted in a total of 130 patients of either sex, between 18-75 years of age with blood pressure (BP) levels of systolic BP (SBP) of 140-200 mmHg and diastolic BP (DBP) of 95-114 mmHg. After a placebo run-in period of 2 weeks, each patient received a fixed dose combination of Perindopril/ Indapamide (2mg/ 0.625mg) once daily, for 8 weeks. BP was assessed at the end of every 2 weeks. Tolerability and safety was assessed by physical examination, laboratory parameters and evaluation of adverse events.

Results: A total 123 patients completed the trial. There was a significant fall ($p<0.05$) in SBP and DBP starting from the second week onwards as compared to the baseline. Mean SBP had a reduction of 23.31 mmHg (15.0%) and 27.21 mmHg (17.2%) at the end of 6^{th} and 8^{th} week respectively, compared to baseline values. Mean DBP had a reduction of 10.97 mmHg (11.0%) and 14.06 mmHg (14.1%) at the end of 6^{th} and 8^{th} week respectively, compared to baseline values. The drug was well tolerated. The laboratory values were within normal limits.

Conclusion: The fixed dose anti-hypertensive drug combination of Perindopril/ Indapamide (2mg/ 0.625mg) once daily has a good therapeutic efficacy and a good tolerability profile in patients with mild to moderate hypertension. It could thus be the treatment of choice in group of patients.

Key Words: Hypertension, Indapamide, Perindopril

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COMPARISON OF THE EFFICACY, SAFETY AND TOLERABILITY OF TELMISARTAN WITH LOSARTAN IN INDIAN PATIENTS WITH MILD TO MODERATE HYPERTENSION- A PILOT STUDY

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Objective: To compare the efficacy, safety and tolerability of Telmisartan 40 mg once daily with Losartan 50 mg once daily in Indian patients with mild to moderate hypertension.

Methods: A prospective, randomized, double-blind, parallel group study was conducted in a total of 85 adult hypertensive male and non-pregnant female patients between 18- 65 years of age with clinic blood pressure (BP) levels of systolic BP (SBP) of 140-200 mmHg and diastolic BP (DBP) of 95-114 mmHg . After a placebo run-in period of 2 weeks patients were randomized to receive either Telmisartan 40mg, once daily Losartan 50mg once daily for 8 weeks. BP was assessed at end of every 2 weeks. Tolerability and safety was assessed by physical examination, laboratory parameters and evaluation of adverse events.

Results: (Table 1)

Comparison of changes in SBP and DBP between Telmisartan and Losartan treated groups

Duration in weeks	Mean SBP ± SDmmHg	Mean SBP ± SDmmHg	Mean DBP ± SDmmHg	Mean DBP ± SDmmHg
	Telmisartan	Losartan	Telmisartan	Losartan
Baseline	153.8 ± 6.38	154.01 ± 7.01	102.4 ± 5.41	101.9 ± 6.63
2	150.4 ± 7.01	153.22 ± 6.78	100.9 ± 6.04	100.3 ± 5.70
4	143.8 ± 5.83*	148.0 ± 5.88*	93.0 ± 7.23*	96.0 ± 5.94*
6	137.9 ± 5.74*	143.9 ± 5.85*	87.8 ± 7.41*	92.9 ± 6.03*
8	132.7 ± 6.06*	137.8 ± 6.37*	83.9 ± 5.55*	87.3 ± 7.49*

** $p < 0.05$(significant by Student's t test)within group*

Treatment with both the drugs resulted in significant reduction in mean values of SBP and DBP at the end of 8 weeks as compared to baseline values. However, therapy with Telmisartan resulted in a significantly greater reduction in mean SBP (13.7% reduction) as compared to Losar-