



Efficacy and safety of Metoprolol+Telmisartan combination in essential hypertension: treatment on variability index and smoothness index analyses assessed by ambulatory BP monitoring

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- Increased blood pressure variability (BPV) is an important risk factor for hypertensive organ damage and cardiovascular (CV) outcomes. Efficacy and safety of fixed-dose combination (FDC) of Metoprolol extended release and Telmisartan in Indian patients with essential hypertension with stable ischemic heart disease (IHD) using ambulatory BP monitoring (ABPM)
- Phase-IV, prospective, open-label, single-arm, multicenter study conducted at 7 centers across India included adult patients of both genders having uncontrolled hypertension (in-clinic SBP 140-200 and/or DBP 90-110 mmHg AND 24hr average SBP $\geq$ 130 and/or DBP $\geq$ 80 mmHg based on ABPM) with stable IHD.
- Patients received metoprolol 25mg/50mg + telmisartan 40mg for 8weeks based on the baseline heart rate and clinician's discretion. Patients underwent 24hr ABPM at screening visit, after 2-4weeks treatment and at 8weeks. The mean baseline 24hr SBP and DBP was 143.38mmHg and 88.84mmHg, respectively. The 24-hr mean SBP and DBP reduced significantly at Week 8 by -14.41mmHg (+/-4.69) and -9.52mmHg (+/-9.96), respectively (($p < 0.0001$) for both)
- BP Variability assessed using treatment on Variability Index (TOVI) was 0.749(+/-1.03) for SBP and 0.612(+/-0.78) at Week 2 to 4 which improved significantly to 0.950(+/-1.03) for SBP and 0.774(+/-0.87) for DBP at Week 8 ($p < 0.0001$). Smoothness index at Week 2 to 4 was 0.620(+/- 0.93) for SBP and 0.532(+/-0.77) for DBP which significantly improved to 0.765(+/-0.78) for SBP and 0.637(+/-0.71) for DBP at Week 8 ($p < 0.0001$).

Treatment with BPV Metoprolol + Telmisartan significantly reduced SBP/DBP & BP variability as measured by TOVI and smoothness index, indicating a consistent and smoother BP reduction. This could prevent CV consequence associated with uncontrolled hypertension.

