**EFFECT OF OLMESARTAN ALONE, AND IN COMBINATION WITH AZELNIDIPINE IN THE CONTROL OF HYPERTENSION AND PLASMA B-TYPE NATRIURETIC PEPTIDE LEVELS**

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*Background*: Data regarding the efficacy of combination therapy in hypertension (HT) are inadequate. Herein, we evaluated the effect of olmesartan taken alone, or in combination with azelnidipine on blood pressure (BP) control and plasma B-type natriuretic peptide (BNP) and pentraxin-3 (PTX-3) levels.

*Methods*: This prospective study included 19 patients with essential HT (9 males; mean age, 63.8 years). All patients initially received olmesartan (10 to 20 mg). Azelnidipine (16 mg) was added when blood pressure (BP) failed to normalize with 20 mg of olmesartan within 12 weeks. Systolic and diastolic BP, plasma BNP, and PTX-3 were measured at baseline and at 28 weeks.

*Results*: At 28 weeks, 8 patients each were receiving 10 mg and 20 mg of olmesartan, and 3 required addition of azelnidipine. Target BP was achieved in 18 (94.7%) patients. There was a significant reduction in mean systolic (154.8 to 123.5 mmHg, p < 0.001) and diastolic BP (87.9 to 75.2 mmHg, p < 0.001) compared to the baseline values. While plasma BNP levels decreased significantly compared to baseline values (58.6 to 45.2, p = 0.03, no significant change was demonstrated in PTX-3 levels (1.90 to 1.79, p = 0.30).

*Conclusions*: A treatment strategy of olmesartan alone, or in combination with azelnidipine resulted in normalizing BP, as well as plasma BNP level, suggesting its effectiveness in lowering BP and improving cardiac function.