**12-WEEK TREATMENT WITH VALSARTAN ON CENTRAL AORTIC SYSTOLIC PRESSURE MEASURED BY BPRO DEVICE IN HYPERTENSIVE ASIANS**

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Background: Central aortic systolic pressure (CASP) has been shown to be a stronger predictor of cardiovascular events than brachial blood pressures. Arterial waveform analysis is a recognized method to measure CASP noninvasively.

Objectives: In this study, we measured the change in CASP after 12-week treatment with valsartan, an angiotensin receptor blocker (ARB), in an Asian hypertensive population using a BPro watch (FDA approved device). We also observed CASP changes in patients with white coat effect (WCE), not treated with valsartan.

Method: Patients at the General Medicine clinic aged 18 years and above were enrolled if they had newly diagnosed hypertension or had uncontrolled hypertension on non-ARB therapy. 24-hour ambulatory blood pressure monitoring (ABPM) was first performed to exclude WCE. Patients with uncontrolled hypertension were treated with valsartan. All patients were monitored for systolic, diastolic and central blood pressure (SBP, DBP,CASP) changes after 12 weeks.

Results: The 52 patients who completed the study were analyzed. Their average age was 34 years with 79% being males and 77% being Chinese. The mean baseline BP and CASP were 150/90±10/10mmHg and CASP 136±12mmHg respectively. After 12 weeks, treatment with valsartan (n=44) reduced the SBP, DBP and CASP by 14.9±10.7mmHg (p<0.001), 10.9±8.4mmHg (p<0.001), and 15.3±10.9mmHg (p<0.001) respectively. In the non-treatment arm (n=8), there was a reduction of 3.5±6.8mmHg (p=0.14), 3.2±7.9 mmHg (p=0.21), and 11.0±20.8mmHg (p=0.12) in the SBP, DBP and CASP respectively.

Conclusion: 12-week treatment with valsartan reduced brachial and central pressures significantly in Asians. Patients with WCE demonstrated non-significant reductions in the blood pressure parameters over time.